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DEPARTMENT OF PUBLIC WORKS

GREEN PAPER

TO CREATING AN ENABLING ENVIRONMENT FOR RECONSTRUCTION, GROWTH AND DEVELOPMENT IN THE CONSTRUCTION INDUSTRY

The Department of Public Works welcomes any comments, criticism or concern from all interested parties on the proposals made for the Development of the South African Construction Industry.

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0001


Comments should be submitted by the 27 March 1998.

A Government Policy Initiative of the following participating Departments: Transport, Water Affairs and Forestry, Housing, Labour, Education, Trade and Industry and State Expenditure.

Coordinated by the Department of Public Works.

**Creating an Enabling Environment
for Reconstruction, Growth and Development
in the Construction Industry**

Green Paper

DEPARTMENT OF

PUBLIC WORKS
REPUBLIC OF SOUTH AFRICA

N O V E M B E R 1 9 9 7



FOREWORD

South Africa is a large country. It boasts the vast open spaces of the *plateland*, long mountain ranges, a spiderweb of roads, railways lines, and air routes. Some of our rivers flow into developed ports and harbours, cutting across land routes which link our cities, towns, villages and farming areas together. Impressive bridges span the most treacherous of these rivers.

Postcard portraits of our country frequently display two major images of our country. On the one hand is the impressive architecture of our cities' skylines, our national monuments and our recreational facilities. On the other hand, our rural areas starkly reflect a legacy of neglect and under-development. Sometimes scenes that reflect the poverty of vast areas of our country are even romanticized. Photos of rural women carrying wood and water on their heads, smiling for the cameras for a fleeting moment in the drudgery and hardship that is the real experience of many of our people.

The visual map of South Africa described here reflects the enormous contribution the construction industry as a whole has made over the decades the workers and bricklayers, the architects and quantity surveyors, the financial institutions and local initiatives. But the visual map also highlights that there is much to be done. Underneath the success of the construction industry in South Africa are a number of features we would prefer were not them: an unstable and frequently insecure employment environment, jittery periods of financial assurance, an inbuilt bias towards urban centres of development and an essentially erratic approach to integrating the construction industry with the vision and objectives of the RDP.

The construction industry - comprising both the building and civil engineering sections - performs an indispensable role in the economy of South Africa and increasingly of the region as a whole. The construction industry provides the infrastructure which is fundamental to the ongoing development of our country; its activities affect everyone's lives in one way or the other. Right at the top of the list of government's development priorities is the provision of infrastructure in underdeveloped areas, designed to bring relief to people living there in the form of jobs, linkages to markets, assets that promote economic development in an integrated and coherent fashion. Jobs, expanding business opportunities and the potential for increased investment for small, medium and emerging contractors and individuals are but some of the benefits that will flow from an expanded and motivated industry.


If government is to achieve the objectives of reconstruction and development we need "a collective strategy for construction industry, development and growth. Towards the end of 1995 the department of Public Works produced a discussion paper which outlined basic principles and initial proposals that

encompassed both a vision and an action plan to provide the country with a strategy for the development of the construction industry. The principles were endorsed by the Departments of Trade and Industry, Labour, Education, Housing Transport, Water Affairs and Forestry State Expenditure, and the (then) RDP Office situated in the Office of the President. After Cabinet approval in early 1996, Public Works was mandated to lead an initiative to produce a coherent policy for the construction industry as a whole. Continued research and preliminary consultation with stakeholders across the whole spectrum of the construction industry in South Africa has brought us to the position we find ourselves today.

This Green Paper arises out of the preliminary consultations and sets out government's distilled vision for an enabling strategy aimed at enhanced delivery, greater stability, improved industry performance, value for money and the growth of the emerging sector. It is premised on increasing public sector demand and identifies the need for improved public sector capacity to manage the delivery process. It seeks to understand the industry and the environment in which it operates. It identifies specific trends within, and the structure of, the industry, as well as the opportunities and constraints within the domestic, regional and indeed the global context within which we operate.

The creation of an enabling environment is a long term project that requires planning, coordination and cooperation between government and the private sector. To ensure policy coordination, cabinet has constituted an Inter-ministerial Committee. In order to get the ball rolling before we are able to introduce the required legislative instruments, I, as Minister of Public Works, will appoint a Ministerial Task Team drawn from industry and government and coordinated by my department. Its main purpose will be to drive the institutional development and to provide a focal point for consultation to refine the agenda for positive change.

I am greatly encouraged with the results of the consultations that have taken place to date. I am very happy to present this Green Paper for wider discussion among a broader range of people and for continued debate within the construction industry. I sincerely believe that the Green Paper provides a solid framework for discussion and comment by all stakeholders. Please take advantage of this invitation to ensure that government policy really does reflect the interests of all our people.



JEFF RADEBE
Minister of Public Works

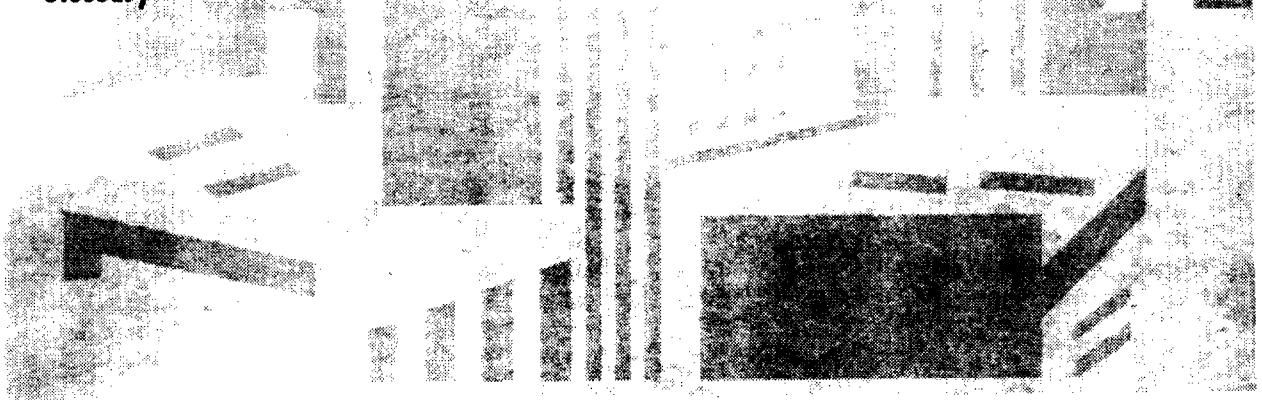


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CHAPTER 1

introduction: The Context of an Enabling Policy

The construction industry, which comprises both the building (residential and non-residential) and civil engineering sectors, plays an indispensable role in the South African economy. It provides the physical infrastructure which is fundamental to the country's development and its activities affect the lives of all South Africans.

A large and growing percentage of infrastructure development is taking place within disadvantaged communities. Thus, the construction industry offers significant job and business opportunities to those formerly marginalised from economic activity.

The sector employs more than 450 000 people and can play a meaningful role in addressing the current unemployment crisis.

Construction contributes about 35% to Gross Domestic Fixed Investment (GDFI) and current projections of future infrastructure investment indicate that its contribution to GDFI could double within the next 5 to 10 years.

1.1. The Purpose of the Green Paper

The need for accelerated and increasing delivery presents industry and government with both challenges and opportunities. Achievement of government objectives of reconstruction and development requires an effective strategy for construction industry growth.

This Green Paper sets out government's vision for an enabling strategy aimed at enhanced delivery, greater stability, improved industry performance, value for money and the growth of the emerging sector. It is premised on increasing public sector demand and identifies the need for improved public sector capacity to manage the delivery process.

In defining government policy for the construction industry the document seeks to understand the industry and the environment in which it operates. Analysis of this environment endeavors to capture the specific trends and structure of the industry as well as the current opportunities and constraints which enable and impede its development. It locates the requirements of industry development within the context of government's mandate and the regional and global context.

Background

Towards the end of 1995, the Department of Public Works (PWD) generated a position paper on the construction industry for consideration by Government, titled "Establishing an Enabling Environment to ensure that the objectives of the RDP and related initiatives by Government are realised in the construction and allied industries". The principles outlined received endorsement from the Departments of Trade and Industry, Labour, Education, Housing, Transport, Water Affairs and Forestry, State Expenditure and the RDP Office (Office of the President).

In February 1996, the support of Cabinet was obtained to develop a construction industry policy and Public Works was mandated to lead this initiative. Further research led to a discussion document which formed the basis for consultation with industry stakeholders towards the end of 1996. This Green Paper has taken into consideration the results of that preliminary consultation process. It provides the framework for discussion and comment by all stakeholders.

1.2. In the Context of Government's Mandate

Government's commitment to the objectives of development, growth and the democratisation of society derives from the mandate of the Reconstruction and Development Programme.

Policy has been further elaborated in several documents which are of particular relevance to construction industry development. These include the following

- Growth, Employment and Redistribution
Department of Finance
- Labour Market Commission Report
Department of Labour
- White Paper on Housing
Department of Housing
- White Paper on National Strategy for the Development and Promotion of Small Business in S.A.
Department of Trade and Industry
- The proposed National Qualifications Framework (NQF)
- Green Paper on a Skills Development Strategy for Economic and Employment Growth in south Africa
Department of Labour

- **White Paper** on Transformation of the Public Service
- Green Paper on Public Sector Procurement Reform in South Africa
Ministries of Finance and Public Works

1.2.1. Responding to Broad Social and Economic Objectives

Within this policy framework, development of the construction industry must respond to the following broad social and economic imperatives

- Sustainable economic growth and productivity of the sector;
- Rapid and efficient delivery of quality assets to the public;
- Sustainable employment creation;
- Affirmative action;
- The active promotion of small and micro enterprises (SMEs);
- Stabilised and enabling labour relations within the framework of labour regulation;
- A human resource development strategy which is holistic, sustainable and accessible;
- Competitiveness and the opening up of South African markets to regional and international business;
- The development of public sector capacity to manage the delivery process;
- Government's role in promoting an enabling environment for industry development.

1.3. Impediments to Industry Growth and Development

- **In rising** to meet broad economic and social challenges, industry and government must overcome a range of fundamental impediments. These include interconnected structural problems associated with the declining demand of recent decades and the volatile nature of construction demand.
- In its effort to survive demand fluctuations, the industry's response has been to adopt increasingly flexible labour practices. The consequent shedding of direct labour has given rise to the use of unregulated labour-only subcontracting which, in turn, has impacted negatively on a range of performance factors such as labour relations, human resource development, output and quality; all of which add to the spiral of rising costs.
- Artisan, supervisory and management capacity has diminished over the past twenty years. Training and human resource development is impeded by current governance and funding mechanisms which tend to marginalise unaffiliated labour-only subcontractors and emerging black contractors. The further divide between the civil and

building industry sectors together with the content and structuring of training provision, impedes skill portability, career pathing and industry skills formation.

- The development of the emerging sector is frustrated by its inability to access finance, credit, vocational as well as management skills training.
- As major client to the industry, the public sector's limited capacity to manage its procurement function gives rise to delivery bottlenecks which escalate the cost of development to both industry and the public.
- The regulatory framework tends to inhibit innovation and initiative, to disempower the emerging sector and to impede industry growth and development.

It is against the need for accelerated delivery and development that the combined and mutually reinforcing effect of these impediments can be characterised as an industry-wide crisis.

1.4. Aim and Vision

The strategic aim of a construction industry policy is to establish an enabling environment in which the objectives of reconstruction, development and growth are realised in the construction industry.

Our vision is of a construction industry policy and strategy that promotes stability, fosters economic growth and international competitiveness, creates sustainable employment and which addresses historic imbalances as it generates new industry capacity.

It presupposes a growing and active industry supported by an effective institutional framework representative of all parties who embrace this vision. It is premised on the ability of government to exert its influence to foster operating practices conducive to an enabling environment.

1.5. The Strategic Framework of Enabling Programmed

Attainment of this vision must address the above impediments in a comprehensive and integrated strategy. A number of mutually reinforcing programmes are proposed as the cornerstones of this strategy.

The programmed envisaged are elaborated in Chapters 2-6 and include the following:

- Developing A Stable Delivery Environment
 - Counteracting demand volatility

- Towards a stable work environment
- Enhancing Industry Performance
 - Work process transformation
 - Procurement strategies to effect best practice
- Towards an Enabling Strategy of Human Resource Development
- Promoting New Industry Capacity and the Emerging Sector
- Developing the Capacity and Role of the Public Sector
 - Delivery to target the marginalised
 - overcoming regulatory impediments to industry performance
 - Improving public sector capacity to manage delivery
 - Promoting regional integration

1.6. Government's Enabling Role

In fulfilling its role as regulator, facilitator and client, Government already features in the affairs of the construction industry. These functions are exercised by various departments and in all spheres of Government.

Regulatory intervention is focused primarily on the protection of public interests. As regulator and client the state aims to encourage practices which are most appropriate for the realisation of society's objectives, and to limit those deemed detrimental.

Government facilitates the achievement of socio-economic objectives through its role as client to the industry, i.e. in the way in which it procures services, and through the promotion of public sector delivery programmes which target support for the weaker sections of society including those that are disadvantaged by current or historical circumstances.

The project of nation building and reconciliation necessitates intervention to promote equity. In addition to the aim of greater equity, the promotion of affirmative action, of historically disadvantaged enterprises and professionals, and of improved labour standards can also ensure positive economic benefits.

Over and above the economic and developmental justification for intervention, the state has an obligation to ensure healthy industry practice since the public sector and public corporations initiate between 40-50% of construction related Gross Domestic Fixed Investment (GDFI). Therefore, the state has good reason to promote improved productivity, output quality and value for money.

As major client to the industry government is well placed to influence its development. However, current efforts by various government departments,

provinces and local authorities are characterised by a lack of coherence, by duplication of effort and the wasteful use of public resources. Different approaches and variances of policy interpretation by diverse public sector agencies are compounding the already complex environment in which the industry operates. Therefore, a comprehensive construction industry policy, supported by the industry, will provide a framework for co-ordinated public sector intervention.

1.6.1. Enabling Policy Instruments

To support and mould programmes for industry-wide transformation of the construction sector, government must ensure a balanced application of the instruments at its disposal. These include the following

- Regulation
- Procurement policy
- Human resource strategies within government
- Direct support, including financial support
- Institutional support

1.6.2. Principles and Purpose of Policy Instruments

The use of policy instruments should be guided by the following principles:

- Be directed at facilitating strategic national development objectives.
- Advance public and private sector partnerships
- Ensure adequate co-ordination through appropriate institutional arrangements
- Enable monitoring of programme performance
- Promote compliance and best practice

1.6.3. Minimum Standards and Best Practice

Following the precedent of other states, such as New South Wales, Britain, Singapore and Malaysia, public sector purchasing power can be used to encourage the industry to embrace reform and to operate in a manner that the public sector identifies as 'best practice'.

Construction industry policy needs to ensure compliance with minimum standards relating to health and safety, employment practice and environmental protection. It also needs to define 'best practice' for a range of interventions. Practices which focus on work-process transformation human resource development, the promotion of SMES and affirmative action are based not only on the operation of leading construction enterprises in South Africa, but also on the experience of construction and other industries internationally.

It must be acknowledged that there is **no** reason to assume that the **public sector necessarily has the expertise to decide** on 'best practice' standards. Through appropriate benchmarking the public sector, in association with appropriate industry institutions, can generate standards which promote the construction economy. Benchmarking is already practised by leading South African construction firms and public corporations, and it is possible to identify those practices which will contribute to the long-term improvement of the industry.

7.7. Institutional Development

The specification of standards, the testing and phasing in of appropriate public sector measures and the development of industry and public sector capacity, will require close and constructive collaboration between the private sector (established and emerging), labour, government and non-governmental sectors.

Co-ordination will also necessitate effective partnerships between national, provincial and local level administrations and between government departments. Constant monitoring and review will be required to monitor and evaluate the effectiveness of enabling programmes and to respond to shifting priorities and new challenges.

These requirements highlight the need for permanent institutional arrangements which are outlined in Chapter 7. Central within the proposed arrangements is the need for a statutory board which can provide a focal point for all stakeholders to progress the agenda for positive change. In co-operation

Enabling Government Initiatives

Elements of the National Public Works Programme (NPWP), a government-wide programme aimed at infusing a community based delivery approach to the creation of assets as well as targeting job creation and training opportunities to the most marginalised sectors of our society

The development of pilot projects to inform guidelines for labour intensive construction and optimum skills training approaches

Procurement Reform, led by the Departments of State Expenditure and Public Works, together with the 10-point plan which effectively opens up opportunities for small and emerging Contractors

The Southern African Construction Industry Initiative (SACII), which gives recognition to the fact that the impact of the industry is not confined within our borders

The creation of the Pilot Roster to begin to address the access to work by formerly marginalised population groups

The establishment of a data base of emerging contractors to facilitate their participation in Public Works maintenance programmes and to tailor developmental support to them.

The establishment of Ntsika Enterprise Promotion Agency by

with government policy organs, the board would evaluate, and advise on, industry performance and the realisation of government's enabling role.

1.8. Conclusion

The strategic goals of industry transformation will not be accomplished by short-term programmed. But the reality that fundamental reorientation may only occur over the next 10 or 15 years underlines the urgency for action. Unless steps are taken now to address the current industry crisis, the broader objectives of reconstruction and development may never be attained in South Africa.

In this Green Paper the DPW in co-operation with the participating government departments presents a vision and a strategy for reconstruction, growth and development in the construction industry,

For all stakeholders to embrace a common vision, that vision must be underpinned by a comprehensive strategy which holds out opportunity for all. The construction industry policy outlined in this document provides the basis for stakeholder and public discussion of such a strategy.

While much has been achieved since the installation of the Government of National Unity the policy of an enabling environment for construction will provide a common framework for concerted action. A number of government initiatives have been launched which already give impetus to the programmes set out in this document.

the Department of Trade and Industry'

A range of engagements with sectors of industry around training, job creation and affirmative action proposals

The design, in co-operation with the private sector, of preliminary guidelines for asset procurement and operating partnerships (APOPS) between the public and private sector

Public sector transformation, aimed at improved service and delivery management

Promotion by the Department of Housing of the Special Presidential Projects for Urban Renewal

The establishment of the National Urban Reconstruction and Housing Agency (NURCHA), the National Housing Finance Corporation (NHFC) and the National Home Builders Registration Council (NHBRC)

Bulk and Connector Infrastructure Grants provided to local authorities through provincial housing boards

The Department of Water Affairs' implementation of the community supply and sanitation programme

The Maputo Development Corridor, with socio-economic objectives incorporated in the tender documentation.



CHAPTER 2

Developing a Stable Delivery Environment

2.1. The Effects of Demand Decline and Volatility

The South African Construction industry has been shifting its focus from a predominately first world oriented construction environment, to one that addresses the basic needs of a population whose economic circumstances more closely resemble those of the developing world. The evolution over the past two decades has given rise to structural constraints.

2.1.1. Mining Demand

Since the late 1970's, Gross Domestic Fixed Investment (GDFI) on construction goods has been declining. According to SA Reserve Bank figures, construction, which comprises both the building and civil engineering sectors, contributed only 2.87% to GDP in 1996, a significantly smaller proportion of the national economy than its peak of 5.37% in 1975.

This trend contrasts with the history of construction in other countries. In almost all countries, but especially middle-income countries such as South Africa, the rate of growth in the construction sector should be greater than that for the economy as a whole. Construction contributes at least 50% to fixed capital investment in most developing countries. Where there is rapid economic development, therefore, construction should grow even more rapidly than the rest of the economy.

Recent research also indicates that construction's share of national income in South Africa is significantly below that of the developed world.

A deceleration of construction activity can be expected as a developing country's bulk infrastructural needs are satisfied. This need not imply a decline in construction's contribution to the national economy because once growth initiating (infrastructural) investment is provided, then 'growth dependent' investment (such as housing) will be stimulated.

2.1.2. The Impact of Demand Decline and Volatility on Production Relations, Quality, Productivity and Capacity

Declining fixed investment has been accompanied by greater volatility of demand, forcing construction firms to emphasise flexibility at the expense of efficiency.

A consequence of the unevenness in construction demand is that the industry has experienced phases of both considerable growth and rapid decline in recent decades which has forced firms to adopt more flexible production strategies such as Labour-Only Sub-Contracting (LXC). The introduction of a new production regime has led to falling productivity and quality of output.

Commenting on a similar trend in the British construction industry, the economist Patricia Hillebrandt argued that:

"large fluctuations in demand and hence output over a long period of time lead to the type of investment in plant and machinery to achieve flexibility rather than efficiency at a particular output; to an industry structure and employment structure to achieve flexibility even at a cost; to a low level of investment in training in research and development and in plant and poor career prospects and transitory management and production teams."

In terms of declining capacity, the 1991 Census of Construction enumerated 14 004 construction firms but, according to Industrial Council and Industry Association records, there may be less than 11000 firms presently active. If these estimates are accurate, then the number of registered firms in the construction sector has declined by between 25% to 50% over the past eight years. It is likely that unregistered firms will account for some of these 'disappearing' numbers so that capacity loss may not be as great as reflected here, but the trend is clear.

2.1.3. The Potential of Anticipated Growth

Government plans to escalate construction spending project an output increase of 100% within the next 5 to 10 years, signalling a period of profound growth for the South African construction industry.

This period of growth provides a window of opportunity for the development of a more stable delivery environment underpinned by measures to counteract the effects of demand volatility and to stabilise employment conditions as the basis for consolidating industry skills and management capacity.

2.2. Counteracting Demand Volatility

2.2.1. Problem Statement

The volatility of the construction cycle can be related to the relative durability of various construction

goods, since many are supplied as single large-scale units rather than in many smaller entities. Even though construction's growth phases are more pronounced, these do not seem to compensate for its periods of decline, and contrary to trends elsewhere in the world, the construction sector seems to remain in recession longer than the rest of the economy. Thus, it has not acted as a lead sector pulling the economy out of recession.

It is certainly possible to see the decline in construction investment, especially that of civil engineering, on the basis that there was an over expansion of fixed investment in the 1970's, which meant that new investment was limited in the 1980's. Given the relative durability of those construction goods, their replacement or upgrading is only becoming necessary in the late 1990s.

The 'accelerator-multiplier' effect can be related to the relative durability of various construction goods and to the scale of delivery since many are supplied as single large-scale units rather than in many smaller entities. For instance, it may be uneconomic to supply many small dams or power stations, so investment in dams or power stations is likely to occur at infrequent intervals when capacity is expanded in large quantum. That dam or new power station will then result in an over-supply, which will then prevent further fixed investments until economic growth has again expanded beyond the limits of the existing facilities.

If the 'accelerator-multiplier' effect operates, then it is difficult for public spending on bulk infrastructure to smooth the construction cycle, particularly for the civil sector whose products are generally of a larger scale than for those of the building sector.

Instead, the greater the level of supply such as that in the 1970s, and the greater the unit-scale of such facilities as the Lesotho Highlands Water Project, the Columbus and Alusaf projects etc., the longer it takes for construction volatility to moderate. On the other hand, since much reconstruction and development spending is in the provision of construction goods on a smaller scale (township service reticulation rather than bulk treatment plants), this might imply a steadier demand in the near future. However, the RDP infrastructure investment objectives of delivering R170 billion worth of construction goods in the next five to ten years is likely to exacerbate the 'accelerator-multiplier' effect.

2.2.2. Vision

The state should aim to moderate the fluctuations in its own expenditure by developing clear medium term

fixed investment guidelines for all public sector spending agencies.

Appropriate scheduling of public sector spending would provide a more predictable environment for private sector investment, for growth and development.

2.2.3. Constraints and Opportunities

223.1. Macro-Economic Considerations

- There has been rather limited success internationally with government attempts to moderate demand through counter-cyclical spending.
- Since the business cycle is partly a consequence of expectations about investment opportunities, it is argued by some economists that government actions to influence the cycle become part of these expectations.
- Construction work has long lead times which often mean that projects commissioned to smooth out a cyclical turn in private sector spending are likely to come on stream during the next upturn, thereby exacerbating the cycle.

2.2.32. Public Sector Contribution to GDFI

It is evident that with the overall decline in public sector contributions to Gross Domestic Fixed Investment (GDFI), the state's ability to affect the business cycle has decreased. This decline in public sector fixed investment must be seen in light of government policy over the past fifteen years.

However, the socio-economic priorities of the Government of National Unity indicate that public sector fixed investment will need to be dramatically increased to reach those previously disadvantaged by Apartheid policies. Plans for between R170 billion to R232 billion investment in infrastructure over the next 5 to 10 years should increase the public sector's proportion of GDFI three to fivefold, end see total construction GDFI more than double,

Even if this target is only partially reeked, the influence of public sector spending on GDFI is likely to be at least three times that of the private sector investment unless private sector fixed investment expanded at a similar rate. A recent study indicated that capital expenditure has already begun to increase, largely in an attempt to expand the international trading Component of the economy.

Projects worth R72 billion were announced in 1995, and a further R64 billion worth of projects were announced in the first nine months of 1996. The

private sector accounted for R30 billion and R41 billion of this expenditure. It was also estimated that although most of these projects will only be completed over a number of years, capital expenditure is likely to increase from R35 billion in 1995 (construction making up R28 billion), to R43 billion and R42 billion in 1996 and 1997 respectively (the construction component was not isolated).

2.2.3.3. The **Devolution of Budgetary Authority Since 1993, the constitution has sought to devolve budgetary authority to lower tiers of Government. Although such a devolution is likely to promote greater public sector accountability and public participation** in budgeting, it is also likely to complicate the task of scheduling public sector spending.

Estimates from the 1995 /6 budget show that central government departments control only about 50% of the overall budget. In the case of Health, Housing and Education, almost 90% of the budget is allocated by lower tiers. The national share is expected to be further reduced in future.

2.2.4. Principles

- The scheduling of public sector spending will remain an objective in stabilizing the environment in which the industry operates, although due cognizance will be given to the associated constraints.
- The scheduling of public sector investment in construction should be aimed at projecting a consistent spending pattern so that private sector investors may be able to respond to this more predictable environment.
- Through the use of macro-economic modelling, the public sector will be better equipped to understand the construction cycle and therefore programme its expenditure in a manner which is likely to moderate demand volatility.
- A more predictable environment should encourage all construction firms to invest in productive production processes and human resource development.

2.1.5. Proposals

2.2.5.1, **Medium Term Financial Planning**
The Draft White Paper on Financial Management and Expenditure Budget Reform initiated by the Department of Finance and State Expenditure provides a framework within which the scheduling of infrastructure investment becomes feasible.

A Medium-Term Expenditure Plan (MTEP) is to be

prepared separately for the national and provincial budgets, reflecting a three to five year expenditure cycle. Before the various MTEPs are prepared, a Medium Term Fiscal Plan (MTFP) will be prepared addressing questions of expected economic growth, future revenue streams, and the deficit before borrowing.

Once a national MTFP has been prepared, MTFPs for other tiers of government will be prepared, which will enable three to five year projections of public sector spending at the different levels. The actual division of revenue between different tiers and between different sectors will be accomplished by means of the National Policy Sector Objectives (NPSOs) which will set out the broad priorities of government.

It is envisaged that Spending Agencies, such as departments, provinces and local authorities will undertake a strategic planning exercise to produce Spending Agency Objectives (SAOs) in line with the government's NPSOs. These agencies will submit bids to the respective treasuries for a share of available expenditure, detailing operating and capital expenditure financial flows. On the basis of these bids, alternative MTEPs will be submitted to the political hierarchies in order to obtain a politically approved MTEP.

Once this financial management system is in place, the task of scheduling public sector construction spending should be considerably simplified. However, since the process described in the Draft White Paper focuses mainly on the setting of political priorities, the actual process of developing construction expenditure budgets will still need to be developed. Although insufficient detail exists at this stage on how the spending agency bids are to be developed, it would be advantageous for the scheduling of public sector construction spending if information concerning the expenditure flow of construction projects can be incorporated into the medium term frameworks at this stage.

The development of medium-term construction expenditure budgets requires the design of mechanisms which will enable line-function Departments to not only reconcile their annual and multi-year capital budgets, but also to take account of changes in recurrent expenditure that may arise from different levels of capital expenditure budgeted. This may require more advanced systems of financial management than currently in use by government.

2.2.5.2. Macro-economic **modelling** and medium term budgeting

To test the viability of scheduling public sector

construction spending, the Department of Public Works has commissioned a set of *econometric* models. These models include a macro-economic simulation of the economy which is linked to a model of the construction economy.

The department will thus be able to project construction demand for the private and public sectors over a five year period. The models will project the variations in demand for different types of construction outputs and the stocks and flows of key construction materials. The macro-economic model is similar in structure to the models used by other government departments for financial modelling and can be used in conjunction with these other models. Alternatively the construction model can be adapted to relate directly to these other models so that Government will have a mechanism for preparing their medium term fiscal and fixed expenditure programmes.

Currently, the PWD econometric models are being enhanced by the Department of Housing to take greater account of housing demand. It is envisaged that these models will be further enriched as other departments make use of them.

The model will enable the Department to assess the extent to which public spending can be used to influence the construction cycle. It could assist in the preparation of multi-year budgets such as the MTEPs, which reconcile the different functional budgets to variations in private sector demand.

Spending Agencies should then be able to reconcile their construction spending with their broader functional objectives in a manner which will enable the state to project more consistent spending programmed.

Given the time delays in commissioning construction work, it is unlikely that counter-cyclical public sector construction spending can be contemplated in the period which is likely to correspond with the MTEP and MTFP. However, there is a need to ensure the consistency of public sector spending, so that reconstruction and development objectives do not exacerbate the current construction cycle.

2.2.6. Indicated Institutional Response

Scheduling, projecting and monitoring of construction demand requires co-ordination between the Departments of Finance, State Expenditure, Public Works and spending agencies at national, provincial and local authority level. An industry advisory body would facilitate appropriate government intervention.

2.3. Towards a Stable Work Environment

2.3.1. Problem Statement

2.3.1.1. Employment Volatility, Skills Depletion and Productivity

In line with volatile demand, employment in the construction industry has fluctuated dramatically in both the late 1970s and in the mid to late 1980's,

In the light of the increased use of sub-contractors, employment decline since the late-1980's may not be as remarkable as reflected in official statistics, since some employees lost from employment records will now be employed by unregistered LOSCs. Nevertheless, these changes would have imposed a considerable burden on the industry in terms of recruitment and training costs since between 1975 and 1978, 34.7% of the labour was lost, only to be again increased by 24.6% in 1982. Employment then fell by 30% between 1982 and 1996 as a result of a series of recessions until the early 1990s.

It should also be noted that construction employment declined to a lesser extent than real construction output. This may suggest that although employment trends basically correspond to real output trends, labour utilisation has become less efficient partly as a result of retaining critical skills, a trend confirmed in the productivity data highlighted below.

2.3.1.2 The Impact of unregistered Labour Only Sub-Contracting (LOSC)

To cope with demand fluctuations, employers have opted for a flexible form of production based on subcontracting practices which free it from labour-related obligations. Although, internationally flexible production processes can be more efficient than traditional direct-labour processes, the distorted reliance on LOSC as adopted by the South African construction industry has resulted in a dramatic decline in health, safety, productivity and output quality.

LOSCs are used in most wet-trades and carpentry, with only the traditional plumbers, electricians and specialist subcontractors supplying their own materials. These LOSCs are often firms formed by previously retrenched employees and, because they remain unregistered, are not reflected in the official employment statistics.

There are no clear statistics indicating the prevalence of sub-contracting in the building industry, although 50% of the firms enumerated in 1991 were sub-contractors. Since then, interviews show that sub-contracting has become predominant, the use of sub-contractors being highest in the general contracting sector, averaging between 65% to 95% of all labour employed on site. Home-building averaged between 40% to 85%, while civil engineering generally averaged about 10%.

While LOSC allows the main contractor to decrease his direct labour costs and the costs of supervision, it also reduces the main contractor's capacity to control the labour process directly, and thus productivity. Because the current institutional framework of the industry tends to exclude LOSCs, sub-contracting also militates against indirect measures to improve productivity and quality, such as those relating to training.

It can be deduced that the increasing use of LOSCs has contributed to the declining level of productivity due, in part, to the disruption of the previous training and career paths of skilled operatives and supervisors. Recent efforts to transform training institutions have proved unsuccessful in reaching the bulk of the construction labour force which is employed by unregistered LOSC employers.

Very few firms check on the employment conditions of their LOSCs labour force, and mainly concur on the fact that cost savings achieved are through lower wage rates rather than through the higher productivity of LOSCs. Indeed, in contrast to international experience, many South African firms agree that both quality and productivity are sacrificed with the use of LOSCs, but that economic conditions dictate their use.

23.1.3. Labour Regulation, Productivity and Costs
In light of the current unemployment crisis, deregulation protagonists suggest that if wages and employment conditions fall to market clearing levels, this would result in a corresponding reduction of production costs. The increased demand arising from these falling costs would then translate into increased employment generation.

This position ignores the fact that labour rarely makes up more than 10-30% of construction costs, with only about 5-10% going to the less skilled, low wage sector. Therefore, even a substantial decline in wages is unlikely to impact on construction costs sufficiently to promote the growth of demand.

Thus, while deregulation may create some short-term unemployment relief, this expansion will be unsustainable. Enhanced productivity is in fact the key to improving industry performance, not deregulation.

Improved industry efficiency and effectiveness requires a significant investment in human resource development (HRD). It is also evident that unless labour turnover arising from worker dissatisfaction with current working conditions is reduced, any investment in HRD will be wasted since those trained will leave the industry.

2.3.2. Vision

Public sector support is required to establish an appropriately regulated labour market.

Promotion of appropriate industrial relations will lead to:

- improved labour conditions,
- reduced turnover,
- sustained human resource development, and
- improved quality and productivity.

2.3.3. Constraints

Labour-only subcontracting is an entrenched component of industry organisation both in South Africa and internationally. Its function in the project-specific environment of the contracting business is not at dispute and regulatory measures should be confined to stabilizing employment conditions.

The industry as a whole is trapped within a competitive arena which dictates short-term profit objectives. Without immediate incentive and state support the industry is unable to focus its creativity on the horizon of longer-term benefits of stability possible through self-regulatory measures.

2.3.4. Principles and Proposals

Following the lead of the Labour Market Commission (LMC), and the Basic Conditions of Employment Act, it is proposed that a supportive system of labour regulation should embrace the following

2.3.4.1. One basic agreement

Given the fact that in building up to 90% of the work performed on site is likely to be done by LOSCs who would qualify as SMEs, it maybe better that a basic agreement applicable to all in the industry be negotiated through collective bargaining. The actual composition of this agreement would vary in the different regional construction labour markets depending on the agreements reached between bargaining partners, but all agreements should conform to a minimum set of basic standards defined in terms of the Basic Conditions of Employment Act.

On the basis of interactions with many of the major stakeholders in the construction sector, it is proposed that the scope of such minimum agreements be significantly scaled down in comparison to existing Industrial Council agreements. Current agreements

cover a whole range of questions concerning trade demarcation issues which are related to pay scales. The actual definition of skills can be better covered through the NQF and the appropriate training organisations.

As far as possible, definitions and **categories** should be applicable nationally so that regional **agreements** need only cover the basic conditions relevant in each area covered by a bargaining agreement. Such a qualification linked scheme would considerably simplify agreements since only the entry level and qualifying wage rates would need to be defined. The actual level of remuneration would then depend on the **proportionate** level of certified skills acquired for qualification in a particular trade category.

23.4.2. Bargaining councils or wage board determinations

It would be inappropriate to suggest the actual content of the agreements beyond the above guidelines, but it is clear from recent experiences in the industry that where no agreement exists, and therefore where no basic minimum wage levels and conditions are set, there has been a rise in industrial action. It is therefore proposed that in line with the recommendations of the LMC and the intentions of the Labour Relations Act (1996), that the state encourage the establishment of bargaining councils covering all areas of construction activity. Where no bargaining councils exist, the Wage Board should be requested to set minimum wages and working conditions in line with basic conditions equivalent to agreements negotiated elsewhere.

2.3.4.3. Trainee schedule

The LMC's recommendation that a less onerous schedule apply to 'trainees', is feasible in the construction sector as long as 'trainee' is defined within the context of developed career paths as expressed by the NQF, and that this limited schedule only be applicable to a particular individual for a specific period of time.

2.3.4.4. Public Sector Measures

The public sector can promote collective bargaining by defining the use of **labour** covered by a collective agreement as a performance standard for public sector work. However, it remains the **responsibility** of business and **labour** to develop the particular form of **labour** regulation suitable to the circumstances of the industry in different regions,

Two options exist for the public sector to define the

use of **labour** covered by a collective form of agreement. These are as follows

- Contractual **specification and adoption of a tender preference policy. This is elaborated further under 3.2.5 as part of "contract conditions to effect best practice".**
- The establishment of a contractor registration and monitoring system which is proposed in Chapter 3 would enable the public sector to accredit (for public sector work) only those contractors who comply with the required performance standards.

23.4.5. Support for the Organizing of **Labour** (Voice Regulation)

The recommendation of the LMC, that the Department of Labour give financial and other support to improve the organisational and bargaining skills of the unions and shop stewards is especially necessary in the construction sector where, due to the itinerant nature of the work process, unions are particularly weak. It would be inappropriate to advocate the use of collective bargaining, if the **workforce** is not adequately organised and equipped to **participate** in the process. Collective bargaining can only succeed, if both business and **labour** have the organisational **capacity** to negotiate from equal positions of strength.

2.3.5. Indicated Institutional Response

A government strategy to promote **labour** regulation would therefore be supported by the establishment of a register of accredited contractors. Since such a register would need to be **monitored in co-operation** with industry government strategy would be further supported by the establishment of a statutory industry body such as the Construction Industry Development Board (CIDB) which is discussed in Chapter 6 of this document.

Similarly, the proposed CIDB can assist in this process by advising government on the promotion of **labour** regulation in the industry, since the implementation of any such arrangement is ultimately the bipartite responsibility of the parties outside of government.

Job Creation and Productivity

Increased construction spending to create employment is counter-productive in the absence of improved productivity.

It is clear that if labour absorption occurs without an improvement in productivity, construction costs will rise.

It is incorrect to assume that investment in construction necessarily generates more employment than other sectors.

Figures such as the 60 or 80 direct jobs per R Million investment that are often quoted in policy circles vastly exaggerate the employment potential of construction. Both international and local research suggests that the industry can create between 11 to 23 jobs per R Million invested in different sectors of the industry, with an industry average of about 17 jobs per R Million.

It should also be noted that these figures, derived from input-output analysis, take account of direct, indirect and derived employment effects. Although the figures are slightly higher than other industrial sectors, the difference is not substantial enough to justify infrastructure investment beyond the immediate requirements of Government policy objectives.

Greater public sector investment in labour intensive construction programmes is to be encouraged as an immediate measure to alleviate poverty and joblessness.

The longer term promotion of labour intensive methods will depend on the extent to which construction activities can increase labour utilisation without reducing productivity and output quality. To the extent that this is achievable, strategies to promote labour intensity should be encouraged over processes which use plant by default. This is particularly true in rural areas where the costs of using plant are increased by transportation cost excesses.

It is also true that as the industry's plant stock ages, and plant replacement gets more expensive due to declining exchange rates, the industry is likely to seek further means to enhance the use of labour over plant.

It is therefore apparent that although the enabling environment framework described in this document will help address the unemployment problems endemic to the marginalised, the employment created in the construction sector will largely depend on the ability of the sector to grow as a result of becoming more effective and efficient.



CHAPTER 3

Enhancing Industry Performance

increasing investment and greater predictability of demand together with a more stable employment and contracting environment provide a foundation for further public sector measures to enhance industry performance.

Construction industry performance is a factor of 'industry-wide effectiveness and efficiency.'

Effectiveness = accuracy, precision, competence, i.e. "doing the right job"

Efficiency = producing with least effort, i.e. "doing the right job, at the right time, at the right cost"

Industry performance embraces aspects of health and safety as well as the impact on social and environmental factors which are associated with direct and indirect costs to the public.

Therefore,

Industry Performance = 'doing the right job, at the right time, at the right cost and in the right way'.

Improved construction performance is a concern of both industry and clients alike.

3.1. Workprocess Transformation

3.1.1. Problem Statement

3.1.1.1. Output, Quality and Productivity

Real output in the construction industry has fallen, particularly during the recession years (1976-78, 1983-87, and 1990-92), with an average annual percentage decline between 1970 and 1995 of 0.6%. Statistics published by the National Productivity Institute (NPI) show that the capital intensity of the industry increased until 1978, but has declined ever since, largely due to the changing nature of construction work.

NPI indices show that labour productivity in the construction sector is now 20% lower than it was in 1970 while fixed capital productivity is almost 60% lower. It is possible to infer, however, that because employment statistics do not reflect the shift to LOSC, the decline in labour productivity is underestimated.

Given that it is much easier and less costly to lay off workers than to dispose of surplus plant, the

fixed capital productivity index reflects a considerably more exaggerated position than the labour productivity index since labour utilisation correlates more closely with changes in output. It would appear, then, that the real decline of both labour and fixed capital productivity lies somewhere between 20% and 60%.

Unfortunately there are no comparable indices for output quality. However, research commissioned for this document indicates that the cost of non-conformance, an internationally recognised quality measure, is about 13% for contractors who evaluate the cost of rework. Since these contractors have already adopted quality management procedures and are conscious of the costs of poor quality output, it is likely that true cost of non-conformance for the industry as a whole is much higher than 13%. Even at this level, the cost of non-conformance is excessive, especially when it is recognised that profit on turnover is currently within the 2-4% range for most contracting firms.

Notwithstanding the decline in construction output as measured by productivity statistics, and the shift to non-statutory labour, the real cost of construction goods as measured by instruction cost indices, has been escalating at a rate greater than that of inflation. This can therefore be seen as an indicator of declining productivity and quality.

Given current performance and capacity constraints, there is reason to believe that the expansion of industry activities will result in economic bottlenecks. Unless constraints of efficiency and effectiveness are tackled, these will give rise to cost increases and producer inflation which will reduce the effect of increased construction spending.

3.1.1.2. Health and Safety

The Occupational Health and Safety Act (OHSA) of 1993, makes comprehensive provision for all aspects of health and safety. However, notwithstanding the penalties associated with non-compliance, the level of fatalities and other injuries in the construction sector remain unacceptably high. The current level of health and safety training for all participants in the construction process is low.

3.1.1.3. Social and environmental impact

Construction activity impacts with permanence on the physical and social fabric of our land. It should

thus be evident that environmental awareness must be placed high on the agenda of contract performance. The costs of poor environmental management are generally not realised at the construction stage, and as a result they **are** either carried by the client or by the general public.

International experience, and anecdotal evidence in South Africa, suggests that the absence of appropriate environmental controls on construction activities could have serious consequences for the future of the country. Environmental degradation can range **from** poor construction techniques which threaten the health and safety of construction workers, occupants or general public, to broader environmental effects which may irreversibly damage ecologically sensitive **areas**.

3.1.2. Vision and Strategy

In the interest of promoting a healthy and competitive industry which delivers value for money in line with international best practice, the state has a responsibility to adopt **policies** which support the goals of improved production practices.

These would include the establishment and promotion of "Best Practice Standards" based on the work-process practices exemplified by leading South African and International firms.

It is believed that these 'best practice' standards will not only promote the long-term development of the industry, but that they can begin to address many of the present problems.

3.1.3. Constraints

Labour market constraints associated with **unregulated labour-only** subcontracting have been dealt with in the preceding chapter.

The industry as a whole lacks a set of best practice standards to which it can aspire.

Improved performance is further impeded by the divide between the design and contracting wings, with consequences for quality, productivity and health and safety. International precedents indicate that many of the difficulties associated with these aspects arise at the design stage long before construction work begins. When problems arise during the construction or post-construction phase, they inevitably **result** in costly delays and/or design variations.

Construction is all too often characterised by adversarial relationships between contractor and

subcontractor, employer and workforce. The entrenchment of adversarial relationships between client and professionals on the one hand, and contractors on the other, is often particularly acute in the implementation of some public sector **projects** due to a lack of alternative dispute resolution mechanisms. These unfavorable relations also impact negatively on the overall cost of construction.

3.1.4. Principles

- Improved industry performance depends on the work process transformation of individual contractors in co-operation with clients and professionals. It concerns the promotion of both minimum and best practice standards for health and safety, quality, productivity and environmental management as well as the regulation of **labour** relations.
- The improvement in work-process standards will lead to **cost savings** which can enhance the competitiveness of the industry as a whole.
- Best practice standards will need to be tested and introduced incrementally on public sector projects.
- Improved performance **requires** a shift towards a partnering approach **and** the increasing adoption of **participative** management techniques as the basis for less adversarial relations in the construction delivery process.

3.1.5. Proposals

Applied incrementally on public sector contracts, the measures proposed below will have a mutually reinforcing effect, contributing to overall improvements. Initial costs associated with introducing programmes of health and safety, **labour** regulation participative, quality and environmental management will be offset by the resultant improvement in efficiency and effectiveness.

3.1.5.1. Towards a Partnering Approach

In the private sector, the concept of client / contractor partnering relationships has proved an effective means to achieve improved quality and reduced costs. Within the framework of public sector procurement such an approach is less easy to implement but the potential benefits warrant consideration of pilot strategies to introduce this concept.

Successful international precedent shows that work-process transformation can be promoted through specific partnering agreements negotiated between the client, design team, contractors (primary

contractors and significant sub-contractors) and possibly workforce representatives. Although partnering agreements have generally involved the main contractor client and consultants, the Latham report has proposed that all significant sub-contractors be invited to join in the agreement. In recognition of the specific socio-political environment of post-Apartheid South Africa, it is further proposed that workforce representatives be invited to be part of the partnering arrangement. In this manner workforce participation will be extended beyond the provisions of the new Labour Relations Act (LRA) of 1995 to suit the project specific character of the construction industry.

Partnering agreements are not necessarily enforced through contractual relations but are rather semi-formal or moral agreements established by significant participants in the project who use this agreement to interpret their contractual obligations. The partnering agreement would usually define a communication framework for the contract, the evaluation procedure to monitor progress and to assist in the early identification of potential problems, and the institution of an alternative dispute resolution mechanism.

partnering agreements can promote best practices with regard to productivity, quality, health and safety issues. Such agreements need to indicate how the different stakeholders will benefit from any savings on overall project costs. International precedents suggest that there needs to be a clear commitment to share the rewards and benefits of the partnering process, and that no one party should bear a disproportionate cost of failure. Incentives for improved quality productivity health and safety, and environmental protection are also specified in the agreements.

Partnering agreements have been established for single projects, referred to as project partnering, and sometimes, for a period of time embracing several projects, referred to as strategic partnering. Greater gains have been achieved internationally through strategic partnering. However, because of the constitutional requirement for competitive procurement, it is proposed that the public sector initially should promote project partnering on a number of key pilot projects. These could be used to generate more general guidelines for partnering in the future.

Partnering should be encouraged to include all those involved in the overall project. Participants could include the public sector client, the design team, general contractor, sub-contractors, major suppliers and worker representatives. These partnering meetings should commence prior to taking possession of the site and occur regularly thereafter.

Meetings would address the following:

- *participant's goals and evolution of mutual goals,*
- *process for resolving disputes,*
- *construction process,*
- *health & safety, productivity, quality and environmental management review,*
- *project programme review.*

3.1.5.2. Participative Management and Workplace Forums

The adoption of participative management practices by the construction industry will contribute to resolving problems associated with poor labour relations, skills shortages, declining productivity and output quality, as well as unacceptable health and safety standards. Construction enterprises should be encouraged to introduce procedure to allow for the participation of employees and sub-contractors in the construction process even if these are not required by law.

The Labour Relations Act (LRA) requires the setting up of workplace forums, for enterprises with more than 100 employees if demanded by the union. In terms of law, therefore, this requirement will only impact marginally on the industry because few construction jobs are undertaken by a workforce of this size and the majority of workers are not unionised.

It is important, therefore, that workplace forums be encouraged in all construction enterprises, regardless of size. However, the formality with which they operate may vary with size and contract duration.

On some current South African projects, workplace forums have been established for each construction firm, with a steering committee for the project as a whole. Although they are primarily used as a problem-solving mechanism, productivity rewards for the workforce are under discussion to ensure that project deadlines are achieved.

It is important to bear in mind that probably no other industry operates under the diverse renditions pertaining to construction work, where a unique project environment is the order of the day. It is therefore important for the industry to recognise the need for project specific workplace forums and project agreements.

A project agreement on participative management will require the input of all key participants who would hold periodic planning meetings which would review progress against previously agreed milestones. It is anticipated that orientation meetings be held as each trade begins work on the project to familiarise new participants with the project and the contents of the project specific agreement.

A flexible approach to participative management needs to take account of the size and nature of the workforce and the work at hand. Variations could include weekly "toolbox meetings" for work teams over a certain number. Alternatively where the total site workforce is small, one "toolbox meeting" could be held for all participants. Where several meetings are necessary, a steering committee may be useful to ensure co-ordination and sharing of information such as:

- *Current status of the job.*
- *Anticipated changes in schedule.*
- *Delivery status of materials and equipment.*
- *Feedback on health and safety, quality, productivity and other performance standards.*
- *Ideas on better ways to perform jobs.*
- *Account of work-site conditions.*
- *Suggestions on how to make up for lost time.*
- *Feedback on issues raised at previous meetings.*

The promotion of workplace forums and other forms of worker participation can be encouraged in the context of promoting best practice standards by making them a condition of contract for certain categories of public sector work.

3.1.5.3. Monitoring Requirements"

Promotion of participative management and partnering will require new monitoring approaches at a project level by other professionals and public sector agencies. The latter would need to convene a post job review conducted by the original participants who formulated the project specific agreement. The review would cover health and safety, productivity, quality, programming and performance criteria, in order to recommend modification on future public sector contracts.

While these post-contract meetings should largely be viewed as a learning process for immediate participants, they will also assist the public sector in refining performance standards during the period

when the accreditation system is being set up.

3.1.s.4. Alternative Dispute Resolution (ADR)

Along with the promotion of participative management and partnering, it is proposed that the public sector help promote the use of ADR mechanisms between all participants involved on construction projects. Of critical priority is the introduction of acceptable ADR procedures between public sector clients and contractors.

It is also proposed that the following recommendations adapted from the Latham report be introduced by the public sector:

- *there should be no restrictions on the issues capable of being referred to ADR, either in the main contract or sub-contracts,*
- *awards in the ADR process should apply immediately,*
- *any appeals to arbitration or the courts should occur after practical completion and should not be permitted to delay the application of an award,*
- *the only exception to the above, should be where a party refuses to implement an award arising from ADR,*
- *training procedures be developed for ADR in public sector construction work.*

The use of ADR in resolving labour disputes has now been formalised by the LRA, and there have been successful local and international examples of the use of ADR in resolving contractual disputes in the private sector. It is proposed that the same terms of ADR apply both to the main and sub-contract relationships, since discrimination in this sphere is likely to destroy the trust established by the partnering relationship.

3.1.5.5. Quality and Productivity Improvement Programmed

It is proposed that the public sector uses its influence to encourage adoption of internationally comparable productivity and quality programmes such as ISO9000, which have contributed to higher productivity and quality and lower costs.

Given that design contributes significantly to productivity and quality improvement processes, it is initially proposed that for certain prime contracts, both the design and delivery agencies be encouraged to acquire certification in terms of ISO9000 or a comparable accreditation programme. Following the example of Singapore, where accredited firms

get up to a 5% tender advantage, the public sector will consider adopting similar preference policies here. The public sector will also investigate the advantages of adopting a quality auditing system, such as the CONQUAS system in Singapore.

Similar productivity and quality certification should also be considered for certain sub-contractors particularly for nominated subcontractor since they have a significant influence on productivity and quality performance.

It is proposed that the public sector encourage the dissemination and use of productivity and quality improvement techniques such as work-study, statistical quality control, quality circles, total quality management and business-process re-engineering. In the case of SMEs, public sector support could include assistance to establish appropriate productivity and quality programmed.

It is important to recognise that these productivity, quality and participative management techniques should be adopted as part of an integrated programme of work-place reform since piecemeal use of these techniques in the past has contributed to their failure.

3.1.5.6. Health and Safety

It is proposed that all OSHA requirements be made minimum performance standards on all public sector projects, but that additional mechanisms aimed at promoting health and safety be defined in terms of best practice. It is believed that health and safety can be promoted through participative management linked to suitable procurement mechanisms and the monitoring of performance requirements. In addition, it is proposed that on all public sector projects, all workers will be required to have undertaken certified health and safety training.

3.1.5.7. Environmental Protection

Currently there are no clearly defined local standards and programmed, but such programmed as ISO14000 and the UK BREEM environmental assessment method provide a basis for promoting a locally defined environmental system. It is therefore proposed that such programmed become a best practice performance criteria for public sector work and be adopted on a select number of prime contracts.

The definition of these best practice standards should however not allow the industry to disregard the existing requirements of environmental protection legislation, and public sector officials should be encouraged to monitor contracts in terms of the

existing legislation as a minimum performance standard.

It is also proposed that the penalties for environmental damage be significantly increased in order to encourage those affected to report contravention's.

3.1.5.8. The Integration of Design and Construction Delivery

Following the example of successful projects locally and internationally, it is proposed that the following steps be adopted as best practice to bring the design and delivery processes closer together:

- The revision of existing education and training curriculum for those involved in both design and delivery to ensure that issues of health and safety, productivity and quality, participative management and environmental protection are adequately covered. The revision of curricula at tertiary institutions of the built environment is a priority given the responsibilities of their graduates, and the limitations of current curricula.
- The appropriate adoption of new delivery models on best practice prime contracts such as design and build and design-build-operate-transfer would foster unity of design and implementation.
- The encouragement of further design and delivery innovation through the appropriate application on best practice prime contracts of standardised and modularised construction technology and off-site fabrication.
- The introduction of participative management practices and partnering, as described above, should be encouraged on best practice public sector contracts.

Following the precedent of the Construction, Design and Management (CDM) regulations promulgated in United Kingdom, where health and safety responsibilities have been extended to clients and designers, it is proposed that similar measures be considered in South Africa.

This would promote a statutory link between clients, designers and site health and safety management.

The concept of shared responsibility should also be introduced for questions of productivity, quality and environmental management, and it is proposed that this be developed through the promotion of partnering relationships.

3.1.6. Indicated Institutional Response and Required Methodology

The establishment of best practice performance standards, partnering and participative management techniques must be undertaken in close collaboration between industry and the public sector. Consultation with clients and professional bodies would enhance this endeavour.

Giving effect to the adoption of both minimum standards and best practice requires the exercise of public sector procurement strategies which are discussed in the next section.

3.2. Procurement Strategies to Effect Best Practice Standards

In various sections of this document, changes to current procurement practices, specifications and conditions have been alluded to:

3.2.1. Problem Statement

Public sector procurement measures are currently inadequate to support industry attainment of performance benefits possible through the adoption of environmental, health and safety, productivity and quality management practices.

Public sector procurement leverage has been recognised by the Procurement Task Team in its preparation of the Green Paper on 'Public Sector Procurement Reform', which effectively moulds procurement as a tool to enable the participation of emerging enterprises as well as to achieve socio-economic objectives. It can be used with equal effect to achieve other social, economic and performance related goals.

Different methods of exercising procurement effectively include:

- *the unbundling of contracts into smaller packages enabling access to smaller sized contracts*
- *tender specification requirements which translate into contractual conditions on how and by whom the job will be done;*
- *contractor accreditation and pre-qualification requirements which limit the nature of contractors eligible, and which are therefore also directed at the "how" and the "who";*
- *the use of appropriate contract delivery models which targets the "how", but often also impact on the "who".*

The Affirmative Procurement Intervention Strategy currently being applied by the department on all its contracts, this strategy (the 10-point plan) uses a number of mechanisms through which to promote SMEs from historically disadvantaged communities.

3.2.2. Vision

Appropriate public sector procurement mechanisms should be introduced to promote "best practice" methods able to influence transformation and ultimately shape the industry as a world leader, providing quality productivity and value for money to its clients, as well as health and safety and environmental protection to the public.

3.2.3. Constraints

Current tender adjudication practice by the public sector (and most clients) places undue emphasis on the aspect of price at the expense of overall value for money. This has compelled sectors of industry to cut corners in order to remain competitive, with resultant consequences for industry and clients.

- Public sector procurement regulation limits flexibility in the resolution of disputes and fosters adversarial relationships between client and contractor.
- Effective use of the envisaged procurement strategies in all spheres of government presents a major co-ordination and capacity building challenge.

3.2.4. Principles

- The nature of the envisaged best practice standards have been discussed in Chapter 3.1.
- The specific content of the standards would be determined by the conditions of contract, which should require the primary contractor to furnish information on the identification and measurement of key contract performance indicators (productivity, quality, safety, and others). Implementation of this procurement approach will require the development of accreditation and monitoring procedures to ensure compliance.
- Performance standards will be established to register construction enterprises into different capacity categories. Until the system is fully operational, public sector tender documents on key pilot projects could explicitly request the required information.
- Best practice standards will apply initially to a limited number of prime contracts that will be selected for the purposes of defining exemplary

operational practices. These standards will largely be defined by the practices of leading South African firms benchmarked against internationally accepted standards. Having been proven on these prime contracts, these best practice standards will thereafter be incrementally extended to other contracts at a pace that will allow individual enterprises the time to put appropriate programmes in place.

- There is a need for a balanced approach to the application of best practice standards to ensure that these foster appropriate development of the various levels of contracting and do not impede the creation of new capacity. However, it would be counter-productive to promote new enterprises if these are merely encouraged to adopt poor industry practices.
- While emerging enterprises need to be given opportunities and support so that participation in construction activities becomes more representative of the demographic profile of the country, this assistance will be wasteful of public resources unless these firms can compete on an equal basis in the long run. When targeting work opportunities and support, competitiveness will be encouraged by the application of similar 'best practice' performance standards to each category of enterprise.

3.2.5. Proposals

3.2.5.1. Contract conditions to effect best practice Following the examples of Singapore, New South Wales and other government led initiatives, two methods of promoting best practice can be identified. A tender preference policy can be adopted whereby firms accredited in terms of certain productivity or quality programmes gets preference of up to 5% against non-qualifying competitors. This system has the advantage of rewarding best practice while not disqualifying non-accredited firms. Alternatively certain categories of tenderers can be asked to prequalify in terms of particular best practice performance criteria.

For certain categories of contract, tenderers could be required to be accredited in terms of either of the above methods on health and safety, productivity quality, participative and environmental management by providing the following information:

- project plan indicating specific actions arising from the nature of the project;
- organogram indicating responsibilities of key personnel and linemanagement accountability and

- project reporting: project performance indicators, status of education and training, awareness actions, status of toolbox meetings.

Additional Considerations

In addition, the following information could be requested to fulfil specific objectives:

Productivity:

- the implementation of a productivity measurement system, using recognised work-study indicators such as field count, five-minute rating, activity sampling, foremen delay survey
- Project reporting at site meetings:
 - project indicators (programme status, budget status)
 - status of productivity programmes.

Quality:

ISO 9000 certification or equivalent certification with a recognised quality management programme for certain categories of projects

Project reporting at site meeting:

- status of quality circles
- status of quality programme
- reporting the cost of non-conformance on certain categories of contract (this information is requested in order to raise the level of awareness about quality, it will not be used as an accreditation criteria)

Health and safety:

information concerning the absolute cost of accidents should be reported, for certain categories of contract. Although this information is requested in order to raise the level of awareness around health and safety, it will not be used as an accreditation criteria information regarding the following health and safety indicators should be provided as accreditation criteria on specified contracts:

- fatalities rate
- disabling injuries incidence rate
- severity rate
- claims ratio.

- *project reporting at site meetings*

- *all classes of injury*

- *incidents*

- *accidents*

- *status of safety structures*

Environmental Management- ISO14000, BREAM or equivalent environmental management certification programme for certain categories of projects

Project reporting at site meetings:

- *status of environmental programmes (pollution controls in place, recycling programmes, hazard waste control, waste reduction)*

Recognition of labour rights:

- *details of UIF registration and registration with bargaining councils in regions where they have agreements*

- *assurance of compliance with the collective bargaining agreement in any region where they have contracts*

- *assurances in terms of the Labour Relations Act (1996), that all sub-contract labour is covered by the existing collective bargaining agreement*

32.5.2. Contractor accreditation to effect best practice

In principle, the concept of contractor accreditation based on contractor classification is similar to the stipulation of contract conditions described above. Both approaches aim at matching enterprise capacity and performance with work opportunities.

In the latter case, the stipulation of contract conditions requires considerable documentation to support tender bids, which itself is a barrier to participation for SMEs and other contractors, and contributes significantly to the task of adjudication and the associated expertise required. It is a method costly to both the state and the private sector.

In the case of contractor accreditation, the establishment and maintenance of a register which accredits and classifies construction enterprises for public sector work places onus on the public sector, in co-operation with the industry to monitor performance and manage a data base. There is significant international precedent for this approach which is merely an extension of the principle of a client's selected tender list.

3.2.5.2.1. The Register of Contractors

The registration and categorisation of contractors and enterprises will enable the following

- the operation of a preference scheme or approved public-sector tender list which would reduce industry and public sector costs associated with the tender process,
- performance monitoring to enable the promotion of improved contractor and to ensure compliance where standards are violated,
- the targeting of resources to enterprises which are demonstrating progress and the withdrawal of support from those which have graduated or have failed to progress (as discussed in Chapter 5 of this document).

A construction enterprise register of accredited enterprises constitutes an essential tool for industry transformation, for monitoring performance of enabling environment programmed and for ensuring compliance with performance standards on public sector projects. It is proposed that all construction related enterprises engaged in public sector work, or in receipt of state funding for training or support functions, be registered in a manner that will reflect their capacity and performance.

The associated monitoring and accreditation system should, in time, obviate the need for tenderers to have to provide the same extent of documentation, since this information would become incorporated into the performance and capacity criteria which constitute the registers. It may then only be necessary for tenderers to indicate whether their circumstances have changed since they last participated in public sector work.

3.2.5.2.2. Performance standards

Accreditation will be related to performance standards monitored in terms of the same work-process objectives outlined above. It would additionally enable monitoring of the following performance criteria:

- Promotion of emerging enterprises including SME participation quotients, and affirmative action standards.
- Training and human resource development including:
 - standards identifying levels of training provided and certification received;
 - employee participation in the selection of trainees; and

- evidence of clear career development paths (refer to Chapter 4 of this document).

Appropriate standards, formulated in consultation with industry, will need to be introduced incrementally to allow government and industry to put the required mechanisms in place.

3.2.6. Indicated Institutional Response and Required Methodology

The need for close collaboration between all sectors of the industry is nowhere more apparent than in this enabling programme.

Although it has been proposed that quality and environmental management be accredited in terms

of the ISO standards for these issues, it is proposed that the applicability of these standards to South African conditions be investigated by the envisaged Construction Industry Development Board (CIDB) described in Chapter 7 of this document. It is further proposed that the CIDB consider other appropriate accreditation criteria in addition to those listed above. The CIDB could also assist the public sector in determining to which project categories these accreditation criteria should apply.

The CIDB, together with policy organs of the PWD and other national departments, will need to provide active leadership in co-ordinating understanding and use of the above strategies in all spheres of Government.



CHAPTER 4

Restructuring Industry: Training and Human resource Development

The South African construction industry is experiencing human resource constraints as a consequence of the poor market conditions faced over the past two decades.

Declining investment and demand volatility has left the industry's skills base depleted as experienced people leave the industry and poor career prospects discourage new entrants. Firms faced with declining markets and tighter margins have cut back on the education and training of staff.

Institutional mechanisms for supplying training to the industry have also come under strain as the structure of the industry changes with the shift towards a LOSC and the emergence of new firms outside of the formal sector frameworks.

4.1. Problem Statement

4.1.1. Human Resource Constraints

In the challenges facing our industry the lack of skilled South African women and men is the single common obstacle to progress. South Africa's Human Development Index (HDI), which measures income, literacy and life expectancy, is low. The country ranks 86th behind all our major trading partners and virtually all countries with a similar level of development.

Although the HDI is primarily a measure of human welfare, it also correlates with measures of international competitiveness, which shows that South Africa's position has declined since 1960 relative to those countries with which it must compete.

The HDIs for the African and Coloured populations are significantly below those of other population groups. Comparative figures indicate that overcoming historical inequities will require a significant redistribution of educational and training resources.

African	-	0.500
Coloured	-	0.663
White and Asian	-	0.836
Urban	-	0.807
Non-urban	-	0.466

4.1.2. Resource limitations

In terms of new skills development, the large-scale adoption of LOSC has disrupted existing education and training relationships which has led to a severe depletion of the industry's skills base.

4.1.3. Governance and Financing Impediments

Existing Governance

Both the building and civil engineering sectors of the construction industry operate under their own training boards. The Building Industry Training Scheme (BITS) operates under the Building Industry Training Board (BITB) while the Civil Engineering Industry Training Scheme (CEITS) operates under the Construction Industry Training Board (CITB). There are also a number of other training boards which overlap this sector such as the Electrical Contracting Industry Training Board (ECITB), the Transnet Training Board and the Local Government Training Board.

Despite this proliferation, a large proportion of the industry, particularly the emerging sector, remains outside of the institutional parameters of the existing structures and control of training is fragmented.

Skills training within the industry is largely financed by employer organisations.

Due to the structure and funding of industrial training, which are linked to affiliation and payment of a training levy, subcontractors, SMEs and the construction workforce at large, have virtually no access to formal opportunities of skill formation and career progression.

4.1.4. Funding Deficit

Almost all estimates suggest that there will be a funding shortfall if the industry's skills deficit is to be overcome and its human resources prepared to meet the expected increase in demand. The proposed funding system therefore needs to ensure greater contributions from all education and training beneficiaries.

Estimated Costs

The figures from UNICON estimate that the cost for the training of 38 000 trainees in 1996/97 is in the order of R139 million. Of this total the industry was able to raise some R38 million under present funding arrangements, leaving a shortfall of R101 million. It is likely that these values considerably underestimate the funding requirements of a skills development programme of the kind required by new Department of Labour proposals. Recent estimates, using the PWD construction model suggest that education and training costs could be considerably higher depending on assumptions concerning economic growth and the numbers requiring training.

Since these estimates depend on estimated industry growth trends as well as upon assumptions about training requirements, the figures given in this chapter are provided for purposes of illustration only. The actual cost of training and level of levies (discussed below), will need to be determined by the relevant stakeholders in line with general Government policy.

4.1.5. Shortage of Supervisory and Management skills

Many professionals, managers and officials in both the public and private sectors are ill-prepared for the scope and content of today's construction development agenda, though some are attempting to master the new role demanded of them. In addition, many formerly disadvantaged enterprises lack managerial skill, and access to such training is limited.

Skill shortfalls will become critical as construction activity grows to keep pace with development demand. Categories acutely affected will be site supervisory capacity (foremen, leading-hands), site management (contract managers, site agents) and the professions.

Problems associated with skill shortages

Since it takes between four to six years to develop professional and managerial staff after they have completed tertiary education, many firms will poach staff from smaller firms. This is likely to have an inflationary effect on overall construction costs. Some firms have indicated the intention to recruit from abroad as they did in the 1970's but others believe that conditions have altered so substantially that this will not be economically viable.

It is estimated that existing artisan training resources in South Africa could process up to 10 000 trainees per year using the competency based learning approach.

Because this system requires the trainee to spend time on site developing the skills learnt, it would take at least 3 to 5 years for an artisan to complete the four levels of artisan training.

4.1.6. Training Content and Structure

With the demise of the apprenticeship system brought about by the adoption of specialised skills training and the shift to labour only subcontracting, a related question is whether existing specialised skills training options provide the trainee with a sufficiently broad exposure to all aspects of the trade so as to enable progression to supervisory and management positions, which are those in most need. The case for a radical overhaul of the existing training framework is evident.

The current modularised special skill training programme provides appropriate content and format for the industrial training component but lacks a flexible approach to theoretical and core skills development.

Because the current scheme relies on off-site training, most firms are unable or unwilling to release their workers for even the short periods required for such training.

4.2. Vision

Development of adequate human resources is essential if the industry is to meet the demands of reconstruction, growth and development.

The management, financing and content of industry training and education must be reoriented to ensure that all participants have access and contribute equitably to the human resource development of the construction industry.

4.3. Constraints

The constraints to achieving this vision include:

4.3.1. Financing

The predominance of small firms and the prevalence of LOSCs with few resources and minimal relations with the formal sector complicates the establishment of equitable and sustainable funding mechanisms. The current payroll levy, if it were to apply to labour-only subcontractors and S'ME's, would place the burden of training on small enterprises with the least resources.

4.3.2 Financing, Governance and Training Provision

Though progress is being made by Unicon, the linkage between financing, governance and, to some extent, even training provision has contributed to the stalemate in the restructuring of training.

Efforts at restructuring have been further complicated by the legal and institutional divisions between industrial sectors and industry associations.

4.3.3. Content and organisation of industry training

Reorientation of training content and organisation is likely to prove a lengthy process which must meet the requirements of the National Qualification Framework and the Department of Labour's proposals on the establishment of a Construction Sector Education and Training Organisation registered under the National Skills Authority.

To promote efficient and effective vocational training, government's Skills Development Strategy envisages the establishment of a National Skills Authority. The Authority would register Sectoral Education and Training Organisations (SETOs) established for accrediting training and developing career paths within an economic sector.

The Building and Civil Engineering Sector would qualify for registration as a SETO. It falls within the Physical Planning and Construction learning field which comprises also the economic sectors of Water, Mining and Energy and Public Service.

The unfolding strategy envisages about twenty economic sectors which are partially or wholly located within 12 learning fields that have been agreed upon by the South African Qualifications Authority (SAQA). For these learning fields, SAQA will establish a National Standards Body to approve learnerships.

The concept of 'learnerships' will replace the apprenticeship scheme and should be accessible to both employed and unemployed. Its central aim is to ensure that learners are guaranteed an opportunity to attain all the elements of a qualification (specialisation, core and fundamental) at any level on the qualification structure. In the interim, the Government's strategy will focus on intermediate level skills.

The concept of career paths is defined by the Department of Labour's HRD strategy as the sequence of jobs or classifications in a work structure that an individual can attain through progressive achievements of educational and training competencies. Career paths should enable an individual to make a lateral progression within a particular industry or sector, or

to make a lateral progression to another industry, or into self-employment.

Career progression requires that the framework of qualifications must permit the individuals to move through the levels of national qualification via different appropriate combinations of the components of the delivery system.

4.3.4. Affirmative Action

Although affirmative action policies are looked to as a means of overcoming human resource deficiencies, there is little evidence such policies have received support of substance. Statistics indicate that some 1650 professionals, semi-professionals and technicians, categorised as previously marginalised, are engaged in the construction industry.

Projections indicate that a 6% growth within the construction industry over the next five years will require a great increase in the numbers of professionals, semi-professionals and technicians. To achieve greater representivity of previously marginalised persons, a proportionately larger increase of this grouping is required.

To appreciate the difficulty of achieving a substantial growth of marginalised professionals, it should be noted that investigations show that there are only about 28 practising African architects in South Africa (1996). This compares unfavourably with the much smaller neighbouring countries such as Lesotho and Botswana who have 22 and 20 practising architects respectively.

The training of built environment professionals in South Africa remains a cause for concern with regard to the success of affirmative action measures. A review of the six universities offering built environment professional degrees, indicates that in the past five years only three institutions reflected significant numbers of historically disadvantaged graduates or currently enrolled students.

4.4. Principles

The restructuring of training must achieve the following:

- Address the need for rapid skills formation to achieve the construction volume and quality required to meet the nation's development programme.
- Be in synergy with the changed structure of the

industry. **Promote** the access to training and career progression by workers, LOSCS and emerging enterprises.

- Introduce the principles of the NQF into construction industry education and training. These include the ability to provide:
 - a strong foundation for learning and balanced development of the individual,
 - flexible career progression opportunities and skills portability.
- Create an equitable and sustainable financing system for training and education which recognises the need for **all** participants to contribute; and further recognises that government's limited contribution will continue to be directed at the most marginalised sectors of the population.
- Overcome historic inequalities and inappropriate **skilling** of professionals by boosting tertiary level **enrolment** and performance of African students and re-orient the training of built environment professionals in line with current development imperatives.
- Align professional training with development priorities and the required delivery approaches.
- Enhance **public** sector capacity to manage the delivery process.
- Develop a focus on the specific requirements of public sector **delivery management**.4.5.

4.5 Proposals

4.5.1. Establishing a new educational framework in construction

The **National** Training Board has agreed in **principle** to the possibility of a standard-generating pilot project within the building and civil engineering fields. In order to ensure that the competencies required by the NQF maintain an acceptable standard in a system which is likely to become more flexible with a greater number of entry and exit points, an education and training authority needs to be established for the construction sector.

Given the current division between the building and civil engineering education and training systems, and potential overlapping of sectors and learning fields discussed above, it is essential that the existing framework of accreditation be revised. **Within** the framework of the above strategy there

is further need to:

- establish Standard Generating Bodies (SGB) within the learning field of Physical Planning and Construction which can generate the unit standards that reflect all necessary skills of different career path options in the sector.
- effect validation of these standards by the National Standards Body (NSB).
- accredit training providers according to the above standards,
- **establish**, through the South African Qualification Authority (SAQA), Education and Training Quality Assurers (ETQA), who will monitor the accreditation process. Whilst the criteria for becoming an ETQA are still not agreed upon, there is broad agreement that these will be constituted according to economic sectors. SETOS could apply to SAQA to **play** the role of ETQA within an economic sector. It is proposed that the construction SETOS apply to SAQA in order that it may play the role of a quality assurer and accreditor in the industry.

In accrediting training providers it is proposed that the availability of facilities should not be a criteria since this limits the potential number of providers. Given the imperative to provide access to training by SMEs, on-the-job and / or on-the-site training should be encouraged.

4.5.2. Towards appropriate governance

Although **in principle** unification need not be a pre-condition for restructuring of the current training provision, in practice the conflicting interests of the various sectors in the industry are unlikely to be able to deliver the required new approach unless the current training provision structure is radically changed.

Whilst the constitution of a Construction Industry Sector Education and Training Organisation (CISETO) could include for two or more training authorities as substructures, this is not considered a desirable long-term goal.

(a) Supporting the goal of industry unification

Given the objective of unifying the industry and bringing the control of training under one institution, **there** area number of steps to forming a single training structure. The first would be agreement amongst all interested parties on a new structure which would lead to the creation

of a new training authority by *dissolving the* present boards and applying to the Minister of Labour for a re-constituted training scheme representative of all rule players.

(b) Further reducing sectoral fragmentation

Under the new system a SETO will be registered by the Department of Labour to represent the twenty identified economic sectors. Unfortunately the water affairs sector is identified as a separate sector, with possibly its own SETO even though the bulk of their training requirements lie in the areas covered by the CISETO. It is proposed that the inclusion of water affairs within the building and civil engineering sector would further consolidate training objectives.

(c) Composition of the Construction Industry Sector Education and Training Organisation

The composition of the CISETO would need to consider

- **the views of UNICON and the unions,**
- **limiting the number of participants to ensure a workable but representative structure,**
- **promoting capacity building of organised labour and the emerging sector to ensure effective participation,**
- **representation by construction related government departments and by the proposed construction industry development board.**

4.5.3. Qualifications

A large part of trade operations in the construction industry can be earned out with a relatively low level of specialisation, fundamental and core skills. Training programmed designed around a limited range of 'specialisation's' with attendant 'fundamental' and 'cm' elements would allow entry onto a career path for historically marginalised groups.

It is thus proposed that the qualifications that are agreed upon must be linked to a framework which allows individuals to play a particular role.

4.5.4. Learnerships

Learnerships could be designed specially for community and labour based construction projects envisaged under the Framework Agreement. Such learnerships which integrate core, fundamental and

specialisation skills would help to overcome the limited training currently being experienced on projects within the Community Based Public Works Programme and elsewhere, and would provide entrants with a real base for progression within the industry.

4.5.5. Career Paths

To achieve the skills development objectives of the construction sector, a flexible and integrated framework of career paths is required which enables increased linkage between work and education and training opportunities, particularly for historically disadvantaged industry participants.

The development of more flexible and integrated career paths needs also to take account of Recognition of Previous Learning (RPL). RPL will be an important means of thorough assessment giving credit to prior learning which has been acquired in different ways, e.g. through life experience.

In designing career paths for the construction industry, it is proposed that the following four principles of the NQF be applied:

- **articulation** to provide for learners, on successful completion of accredited prerequisites, to move between components of the delivery system,
- **access**, to provide for ease of entry to appropriate levels of education and training for all prospective learners in a manner which facilitates progression,
- **flexibility**, to allow for multiple pathways to the same learning ends,
- **portability**, to enable learners to transfer their credits or qualifications from one learning institution and / or employer to another.

4.5.6. The Financing of Training

There has been significant research and debate on the financing of training. However it is unlikely that a single model will apply to all industrial sectors. Given the characteristics of the construction sector, particularly the vast differences between large and small firms and a strong reliance on sub-contracting, an industry specific model for the funding of training needs to be considered.

4.5.6.1. Funding Estimates

In order to estimate the funding requirements for education and training, a human resource needs assessment of proposed private and public sector

spending on construction goods and services will be developed by the SETO. In the interim, human resource projections can be extracted from the macro-economic models, which the department is developing. The sector should then be able to identify what human resources will be required and what education and training would need to take place.

4.5.6.2. Sources of Revenue

It is estimated that the construction sector spends less than 1,5% of payroll on training and that depending on the numbers requiring training, it would need to increase the payroll levy significantly. This would be in line with local and international precedents. South African parastatals and mining houses spend over 4% of payroll on training while expenditure in Europe and Japan on training and development is between 6% and 10% of payroll.

(a) Proposed turnover levy

Because of the existing employment structure in construction and the prevalence of subcontracting, it is proposed that a turnover levy would be a more equitable and effective financing method which would also exert influence on employment practice. Under the payroll method, it is evident that large contractors contribute considerably less than small and medium sized firms who employ more direct labour.

There are also precedents for a turnover levy in the industry. Members of SAFCEC pay a turnover levy to their professional association in addition to their payroll levy to the Training Board. Given that the current industry turnover is around R28 billion, a turnover levy of around 1.5% would generate about R400 million. This would represent a shortfall in terms of most growth scenarios, but would cover training under some scenarios. The exact level and mechanisms of levy would need to be in alignment with payroll levy thresholds and mechanisms proposed for other industries by the Department of Labour.

(b) The negative impact of SME Exemptions

In relation to the Department of Labour's Skills Development Strategy, the granting of levy exemptions to certain categories of SME firms has been considered. However, it is proposed that this would be inappropriate in the construction sector given the sector's reliance on subcontracting. Since the majority of subcontractors are already very small, any exemptions from the training levy would simply undermine the whole scheme and could encourage main contractors to even further fragment the industry

to effect cost-savings through sub-contracting. Alternatively the turnover levy would have a progressive impact, with the burden of training costs resting on the larger firms and thus obviating the need for exemptions.

(c) The negative impact of tax exemptions

Tax-deductible levies would constitute a considerable government subsidy and would substantially undermine the rationale for the control of training to remain in the hands of the private sector. If tax deductions are to be considered, it may be more efficient for the state to directly contribute to training given the costs and difficulties of verifying tax-deductible training costs.

(d) Government subsidies

As far as the state is concerned, it is proposed that all public authorities involved in construction work allocate limited resources for training the most marginalised sectors, the unemployed and youth. These resources could either be allocated through the National Training Fund (NTF) or directly through public sector project specific funding. It is possible that a percentage of public sector project funding could be deposited into the NTF to provide for follow-up training programmed aimed at furthering the skills of those who exit project-related training successfully. Such trainees could receive a voucher for presentation to an accredited training provider.

4.5.6.3. The critical significance of funding

Unless a viable method of funding training is established, the proposed HRD strategy and many of the enabling environment programmed will fail.

Many of the stakeholders have identified the need for funding, but have been unwilling to accept that this funding depends on the willingness of all the construction participants to contribute to the development of the industry's human resources.

4.5.7. Appropriate Mingle of built environment professionals

In concert with current initiatives by the Department of Education it is necessary to ensure that the education of industry professionals accomplishes the following objectives:

- Align training more closely with development priorities and the required delivery approaches.
- Overcome historic inequalities and promote enrolment and progression of African students.

- Develop a focus on the specific requirements of public sector delivery management.

Government can interact with the institutions to ensure a coherence of thought and objectives. It is important to recognise that the above proposals be located within the paradigm that recognises the importance of:

- maintaining and increasing educational standards particularly within the context of specialisation.
- increasing the relevance and importance of the institutions within the context of a developing country.
- increasing student populations within the institutions.
- promote the development of well-rounded professionals through multi-skilling.
- integrating the institution within communities through their active participation in development, and the offering of adult based education.

4.6. Indicated Institutional Response

4.6.1. Industry Skills Training

Proposals on governance have been advanced under 4.5.2 above. Along with the principle of separating

governance, funding and provision, and noting the role of the Construction Industry Development Boards (CIDB's) in countries like Singapore and Malaysia, consideration should further be given to the role of the envisaged South African CIDB in the active promotion of appropriate industry skill formation.

4.6.2. Built Environment Professionals

There is a need for the co-ordinated interaction of government, the statutory professional bodies and the contracting sector to ensure

- the appropriate development of all built environment professionals, as well as
- greater synergy in their training to meet public sector objectives, industry needs and the all round promotion of existing and new professions

In this regard proposals are advanced in Chapter 5 on the establishment of an overarching Council of the Built Environment Professions which will need to establish appropriate links with the CIDB.



CHAPTER 5

Promoting New Industry Capacity and the Emerging Sector

5.1. problem Statement

Given the numerous historical and economic constraints that have hindered the full participation of SMEs in the economy, government is committed to bringing small business into the mainstream of economic activity. It seeks to enable the increased participation of black owned and controlled enterprises in the production of value-added goods, in wealth generating enterprises and export markets.

The draft bill of the 'National Small Business Enabling Act' highlights the development of small, medium and micro-enterprises (SMMEs) as an important means to tackle the challenges of job creation, economic growth and equity.

Given the structure of the industry, the definition of SMMEs provided by the Act would include the majority of contracting and consulting firms. This document therefore refers primarily to small and micro enterprises (SMEs) as defined by the Act. Alternatively the term 'emerging enterprise' is used to designate this category.

The definition of SMEs includes both emerging firms owned by historically disadvantaged persons who are seeking to improve their position vis a vis the established construction industry, as well as the potential new firms which may be developed from the ranks of the unemployed or by existing construction workers.

Government believes that emerging construction related SMEs can significantly contribute to the realisation of key economic and redistributive objectives for a number of reasons:

- They can be powerful generators of **income and employment opportunities** since they generally use less capital investment per unit of output than larger enterprises;
- SMEs can be more competitive than larger firms on certain types of small, disparate and geographically dispersed projects because they generally have relatively lower overheads;
- The relatively low entry barriers in terms of skills (technical and managerial) and capital requirements make SME contracting an important entry point for historically disadvantaged persons into the construction industry and
- Given the above, SMEs can lay the foundation to deracialise the construction industry if they

provide a platform for future medium and large scale firms owned and controlled by historically disadvantaged persons,

5.2. Vision

In creating required new industry capacity, construction industry policy must promote the participation and growth of small and micro enterprises (SMEs) through affirmative action in support of historically disadvantaged sectors of South African society.

5.3. Constraints

5.3.1. lack of Access to Work Opportunities

The Census figures show that civil engineering is the most concentrated sector, and that home-building is least concentrated. The figures below suggest that in all three sectors, the industry is dominated by larger firms which take the lion's share of construction output:

- the 10 largest civil engineering firms accounted for 34% of civil engineering output;
- the 10 largest general contractors accounted for 29% of general contracting work; and
- the 10 largest home-builders accounted for 18% of home-building output,

Between 20% and 30% of the number of firms in each sector accounted for more than 80% of output in 1991. on the basis of research conducted in 1992, 1994 and 1996, it is reasonable to assume that this pattern of concentration still holds.

Construction-related SMEs have faced various difficulties in gaining access to the market. Inexperience, lack of managerial and marketing ability, as well as access to capital" contribute to a vicious circle which pegs their' growth and development.

A range of public sector initiatives are beginning to open up opportunities. Foremost of these is procurement reform and adoption by the department of the "10-point plan" which is aimed at the immediate transformation of the situation facing black contractors. Similarly the introduction of the "pilot roster" targets black consultants in the industry.

5.3.2. lack of Management Expertise

One of the most significant constraints facing SMEs is *their* lack of managerial expertise. This gives rise to related problems such as poor cash-flow management, labour supervision and turnover.

The most common response has been to establish support programmed for SMEs. However, research on programmed designed to support the SMEs in the low-income housing sector indicates that many of these did not equip the builders with the skills of 'risk management' that would enable them to survive in a competitive market. While these programmed provided managerial support, they restricted enterprise operations to a level which did not guarantee self-sufficiency.

5.3.3. Inability to Access Training

A primary constraint facing SMEs, is access to training to improve their business skills and to develop trade skills within their labour force. Small contractors are often unregistered and unaffiliated to the main employer bodies, They pay no levies and have limited or no access to the training programmes offered by the current industry training boards. They are therefore not in a position to improve their productivity.

Without access to available training institutions, many sub-contracting firms train their own operatives on the job. However, the erratic availability of construction work diminishes the value of informal, on-the-job training. In contrast to the continuity and depth provided by the old apprenticeship system, it is unlikely that new generations of semi-skilled labour will be sufficiently experienced to pass on adequate skills to their operativea in the future. The industry can therefore expect to see a progressively deteriorating standard of skilled work on site,

A second problem concerns the appropriateness of current training options. The training provided in the construction sector through the Building Industries Training Scheme (BITS) and the Civil Engineering Industry Training Scheme (CEITS) has mainly focused on providing technical and supervisory skills. A limited range of managerial training has been undertaken by construction companies or private sector consultants.

Faced with these problems, the only option of many SMEs is either to price themselves out of the market, underpay their workers, or find themselves with cash-flow problems which lead them to abscond when the job is half done. An alternative for SMEs is to consider the option of joint ventures which are currently being initiated by some large construction firms.

5.3.4. Business Failure and Growth Patterns in Developing New Contractors

Beyond the provision of training and the development of new contracting arrangements, there is the need to take cognizance of business failure. International research indicates that between 30% to 50% of *small firms* fail in their first three years, and only 40% to 45% of firms remain in business after ten years. Site these examples are derived from a relatively sophisticated sample it is likely that small business development in South Africa will experience a much greater failure rate.

Thus, the current expectations of the growth are likely to be vastly exaggerated because they assume a linear or exponential growth pattern which does not take account of business failure. There is also no reason to assume that SMEs which survive, will necessarily grow. To quote, from the British experience, the probability that small firms will grow to employ more than 100 employees is between 0.5% and 0.75%.

5.3.5. Contradictions of Community Demands and SME Growth

A difficulty experienced by SMES is the understandable demand by communities for local employment in their areas. A "use of local labour" specification in fact features in many current contract documents. Contractors operating at this level are unable to establish and consolidate a permanent skilled workforce.

This phenomenon affects black contractors more severely than it does their established counterparts because the emerging contractor is viewed as a threat and as competition by local communities. Even on a single project incorporating several identified communities, there is a tendency for each community to reserve work within its domain.

This has severe consequences for enterprise growth as valuable workers are lost due to the lack of continuity. Training investment is diluted to the point of being wasted and forward planning becomes difficult.

5.3.6. Difficulty in Organising and Regulating the Sector

Despite the existence of several national associations of emerging contractors, the bulk of emerging black contractors remains unaffiliated and unregistered. The sector lacks cohesion and barriers to organisation include variations in capacity, sophistication and vision. Existing national associations have very limited human and financial resources with which to organise the sector into the mainstream. In relation to the established sector they remain weak.

5.4. Principles

- **Overcoming industry capacity constraints and historical inequalities and the promotion of SMES.** However, successful intervention will require considerably greater levels of support than previously anticipated. Given the high-risk nature of contracting to both client and enterprise, government commitment to SME promotion must be underpinned by a dedicated and effective programme of public sector support.
- **Enabling programmes must not perpetuate the division of the construction industry between a relatively well resourced formal sector, and an unregistered poorly resourced informal sector.**
- **Support to SMES must therefore maximise benefits from public resources by allocating them to those who make best use of them.**
- **The flow of work to SMES should be made more consistent.**
- **The establishment of a register, classification system and performance monitoring of emerging businesses will help regulate the sector and will enable the targeting of appropriate work opportunities and support.**
- **Tender and contract documentation for certain types of contract need simplification and standardisation to promote the participation of SMEs.**
- **Public sector procurement practice on each project must balance the objectives of SME consolidation against the desired objective of community employment and training.**

5.5. proposals

To date the central focus of the PWD has been on the conceptualisation and introduction of programmes and mechanisms which open up work opportunities for emerging enterprises. Some of these, like procurement reform, have been undertaken in co-operation with other departments and implementation is being embraced by provincial and local authorities, as well as by parastatals.

Procurement reform aims to achieve:

- *the unbundling of projects into smaller manageable opportunities and the use of appropriate delivery models,*
- *the categorisation of contracts and the removal of onerous conditions (sureties and guarantees) on low risk contracts,*
- *to award contracts in terms of a development objective/price adjudication mechanism which targets SME participation.*

On award of contract these tender conditions are formulated as targets, or performance criteria, which must be met by the contractor.

Contracts are classified by class and type so that conditions of contract can be appropriately shaped to enable access by specific types of construction enterprises.

In preparation for targeted support, PWD has also established a preliminary database of emerging contractors linked to performance indicators.

The proposals that follow therefore seek to build on these initiatives, while at the same time expanding the range of support mechanisms and practices that can be utilised to encourage the growth of this sector of the industry.

5.5.1. Review of Documentation

There is a need for continual review of conditions of tender, contract specifications and design criteria to ensure they do not constitute barriers to increased participation of small and emerging businesses in the mainstream construction economy.

5.5.2. Review of Performance Standards and Contractor Accreditation

In line with proposals made in Chapter 3.2 of this document, the accreditation of contractors to enable pm-qualification must relate to performance standards which include promotion of SMES (inducting participation quotients). The approach adopted may include a waiver of some performance criteria for contracts of limited value let to emerging SMEs. However, even for such SMEs, it is proposed that certain minimum standards must apply, in order to limit avoidance and promote competitiveness.

5.5.3. Simplification of Documentation

Tender and contract documents are sometimes difficult to comprehend because they are not in the mother tongue of most SME operators and deploy advanced English terminology and legalese. In addition, various procurement agencies use different tender and contract documentation, even for similar goods or services, which requires tenderers to invest time in order to familiarise themselves with such documents.

The simplification and standardisation of tender and contract documentation coupled with wider dissemination of information and transparent adjudication processes for certain categories of contract would constitute a major stepping stone in the ability of small enterprises to access opportunities.

5.5.4. Enabling a Continuous Flow of Work

The proposed medium term financial planning methodology could be developed to ensure a **steady flow of work suitable for various categories of small and emerging businesses**. It should be possible to extract information on the amount and **types of work suitable for various categories of small and emerging businesses and to direct these opportunities through applicable procurement mechanisms**. This task would be facilitated by a data base linked to a register of such enterprises.

5.5.5. Information

It is difficult for **small and emerging businesses to obtain accurate and timely information about tendering opportunities**. Currently this information is only available in the Tender Bulletin and newspaper advertisements. In most private sector contracts, the design professionals and procurement **agencies** keep their own lists of potential contractors and suppliers.

An organised system to ensure dissemination of **tendering information is necessary for small emerging businesses**. The development and appropriate location of accessible information technology to support this objective would fall within the ambit of the envisaged support **programme**.

5.5.6. Access to Finance

Finance can take the form of short-term assistance with working capital needs and / or longer financing of physical assets and contract guarantees. Ordinarily these services should be the **function of private sector financial institutions such as commercial banks and development corporations**. **In the interim it will be necessary to encourage financial institutions** to enter this market at interest rates affordable to SMES.

Currently the National Urban Reconstruction and Housing Agency (NURCHA) provides working capital guarantees on projects run by **SME's, NGO's, Community Trusts, Non-Profit and Private Sector Developers**. In its first year of **operation**, it provided **R16 million in guarantees to 18 developers or contractors**, thereby facilitating 7585 dwellings worth **R123 million**. **NURCHA can serve as a precedent for using public sector guarantees to enable the previously marginalised to become active in the construction sector**.

To persuade banks to establish specific loan assistance programmed for emerging businesses the following should be considered

- Regularise this market segment to reduce the uncertainty which informs investment decisions

of **financial institutions** by creating a register of emerging businesses. The register would need to incorporate traceable personal details and the performance record of enterprises. Such information **could be used by financial institutions for initial screening of loan applicants**. It could further enable major suppliers to open significant lines of credit which would enable procurement.

- Arrange access to the loan guarantee fund that has been established by **Khula Enterprise Finance Ltd.** for emerging construction businesses. It is however important that access to the fund is structured so that that normal commercial risks still reside with the financial institutions.
- Establish a carefully structured facility for emerging enterprises to cede their contract payments and contracts to financial institutions until the loan is paid up. The terms of such contract should not prejudice either party.
- Encourage financial institutions to establish **programmes to educate emerging enterprises on their loan policies, procedures and requirements**.

5.5.7. Payment and Surety Arrangements

Delayed payment often causes contractors to add an overhead premium to defray anticipated delays in settlement. Recognizing that emerging construction enterprises **are more susceptible to cash flow problems**, the streamlining of payment procedures would greatly assist SMES. In turn the industry will benefit from more competitive **tenders** as these firms begin to reduce the premium for delayed payment.

Waiving sureties or performance guarantees for certain low risk contracts will assist emerging businesses to maintain a reasonable cash flow. Other forms of surety, for example the "back-to-back" guarantee, whereby emerging contractors stand guarantee for each other's performance should also be promoted.

However, these facilities should only be accorded to enterprises with a demonstrable capacity to perform. Registration and accreditation procedures as well as performance monitoring would enable clients to minimise their risk in such cases.

5.5.8. Dispute Resolution Procedure

Conventional mechanisms and procedures for dispute resolution such as arbitration or litigation are both costly and time consuming. **Small and emerging contractors with limited financial reserves are wholly disadvantaged, indeed imperiled by the event of dispute**. Mediation methods sensitive to

the circumstances of small and emerging enterprises need to be introduced.

Such mechanisms should strike a fair balance between the aim to produce quality goods and services and the equitable treatment of contractors: The ADR mechanisms proposed in Section 3.1.5.4 should accommodate these requirements.

5.5.9. Skills Formation and Access to Training

Access by emerging contractors to construction skills is tied to reorientation of the structure and funding of industry training discussed elsewhere in this document. Restructuring must be underpinned by the principle of equitable and manageable payment towards training costs. Basic business and contracting management is a sustainability factor. Generally most small and emerging construction businesses are run by persons who have vocational training experience but are unlikely to have received any formal management training.

Training directed at enterprise owners and managers should cover the following:

- basic financial management for small construction businesses
- estimating techniques and tendering procedures
- legal aspects of construction works, contract law, preparing and negotiating claims against contract variation
- quality assurance and productivity improvement techniques
- basic contract planning techniques
- technical drawings and specifications
- advanced trade / craft skills and specialisation

5.5.10. Monitoring Performance

The small and emerging construction sector would be regularised through the registration of contractors accredited for public sector construction. This information would also inform the packaging of contracts compatible with emerging sector capacity.

Accreditation would regulate the conduct of contractors through the temporary or permanent suspension of those conducting themselves unscrupulously or failing to perform. The support programme's network would disseminate information on how to apply, would administer application forms, verify data furnished by contractors, synthesise and categorise information received and, with the consent of participating enterprises, would supply data to prospective clients and financiers.

Accreditation and performance monitoring would help to expose the practice of fronting and to ensure the genuineness of joint venture agreements.

5.6. Institutional Response Indicated

There is a need for a specialised support programme which will provide comprehensive support to small-scale enterprises and will build on work done by the department and other public and private sector agencies as well as by NGOs. The programme would either be lodged within, or foster close links with, the Ntsika Enterprise Promotion Agency. Such a programme should also be closely linked to the Emerging Construction Sector and industry at large.

Support activities should focus on

- the dissemination of enabling processes clients, industry, suppliers and financial institutions
- enabling access to finance and credit
- enabling access to information
- enabling access to skills and management training.

The state has limited resources with which to support SMEs. Therefore, interventions to promote SMEs must be designed to promote and reinforce private sector initiatives and to avoid reliance on the public sector which cannot substitute or replace the existing finance, training, buying and marketing infrastructure.

Support eligibility criteria would need to clearly be defined as well as criteria for the discontinuation of support.

A central thrust of the programme will be to impact on the framework that governs the construction industry and on the "client fraternity in a manner which purposefully promotes an environment conducive to emerging sector growth.

Although the Department of Public Works has a national mandate to develop policies and programmes to create employment opportunities in construction projects and for construction enterprises, very little will be achieved without securing the broad support of the industry. It is equally important in this regard that various government departments and tiers of government act in unison. In this regard the PWD has entered into close collaboration with the Department of Trade and Industry to pilot the introduction of the national Emerging Contractor Development Programme.



CHAPTER 6

Developing the Capacity and Role of the Public Sector

The **role of the public sector** has featured prominently in all the preceding chapters. These highlight the need for the rapid development of **capacity** and greater management flexibility if government's delivery objectives are to be attained.

This Chapter therefore focuses on particular aspects of government's enabling role and its capacity to perform that role. Specifically, it focuses on:

- Delivery to target the marginalised
- Overcoming regulatory impediments to industry performance
- Improving public sector capacity to manage delivery
- Government's role in promoting the construction industry at regional and international level

6.1 Delivery to Target **the Marginalised**

6.1.1. Problem Statement

South Africa's past has created extreme marginalisation and impoverishment of many of South Africa's people and communities.

In particular, rural communities and black women have been **disempowered**. The state has therefore prioritised delivery to target and address such impoverishment and disempowerment and remains committed to this objective.

While growth and development of the construction industry is the key to sustainable employment and human resource development public sector delivery, particularly public works **programmes**, will **continue to be a cornerstone of government's enabling strategy.**

This focus is aimed at utilising the immediate possibilities to generate employment opportunities through labour intensive construction, and to empower communities through participation and training.

6.1.1.1. **Labour-intensive Delivery**

Labour intensive delivery seeks to substitute plant intensity with **labour** and to encourage the use of

labour based technologies in construction and manufacture. Civils work is the major target of labour intensive policies because it tends to be more plant intensive and has substantial potential for job creation.

Successful implementation of labour based delivery must begin with the design brief and the design itself. Public sector officials are often technically ill-equipped to commission the appropriate design of labour based contracts.

6.1.1.2. **Community Participation**

Allied to the need for creating employment through promoting labour intensive construction, is the need for promoting community participation.

This need for community participation in delivery is a consequent of:

- the scarcity of resources;
- past alienation from decision-making; and
- the need to address expectations, which invariably exceed available resources.

Community involvement, participation and co-operation give recognition to the rare developmental opportunity presented by a construction project and can lay the foundation for an ongoing development process.

Such projects have contributed significantly to the fund of development experience and have assisted government agencies, professionals and contractors to gain a clearer understanding of the current development requirements.

The shift towards a people-centred delivery process and the need for community participation therefore requires an expanded skills base and understanding on the part of public sector clients, contractors and professionals.

6.1.2. **Vision**

Job creation and community empowerment programmes should be promoted in a manner that will:

- create quality assets
- address the need for immediate poverty alleviation
- develop sustainable **capacity**
- reinforce industry growth and development
- shape delivery in the future

6.1.3. Constraints

Several problems are associated with community participation and labour intensive construction targeted to marginalised communities:

- Complete sustainability is not achievable because construction is project-based.
- Beyond a specific threshold **labour** based construction becomes less cost effective than plant based construction
- Community participation can be costly, leading to project and delivery delays and can limit the extent to which continuity of work and skills development can be scheduled.

6.1.4. Principles

- Create sustainable assets and ensure the means for sustainability.
- Maximise local employment through the optimal use of **labour** based construction methods and target women and youth.
- Maximise the use of local resources.
- Involve communities in decision-making.
- Facilitate the transfer of sustainable technical, managerial and capacity building skills to recipient communities.
- Support the development of SMES and community materials suppliers.

6.1.5. Proposals

6.1.5.1. Labour Intensive Construction
The above principles have been incorporated in the new Framework for Labour Intensive Construction in Civil Engineering projects. Implementation of this programme depends on the ability to understand the delivery principles and to master the required

procurement and project management techniques.

A measure of sustainability can be accomplished if the growth in demand ensures some continuity of projects, particularly through programmed of development in targeted areas. It is proposed that such continuity, coupled to an accessible and flexible training **programme**, should enable participants to acquire a wider range of skills and **experience than** can be accomplished through a **single project**. This will depend on sensitive **mechanisms** to finance training which combine project based training with follow-up training so as to consolidate individual opportunity and industry capacity as a whole.

In terms of the cost tradeoff between **labour** versus **plant based projects**, it is proposed that the state needs to balance the need for job creation against the need to deliver construction goods and services in a **cost-effective** manner. However, a strict cost comparison of the different construction delivery models will fail to take account of the cost of reduced poverty, associated welfare demands and crime reduction.

As a result of increased costs, the specified use of **unskilled community labour** and the need to ensure that employment creation projects are indeed productive, task-based payment methods are a necessary means of ensuring a desired project outcome and end. It is therefore proposed that **stakeholders continue** to work together to define an acceptable method of paying for work accomplished rather than for time worked.

Since **successful** implementation of **labour** intensive delivery must begin with the design brief and the design itself, the ability to commission design consultants appropriately must therefore be an important function of public sector delivery **agencies**. This would be supported by a set of government and industry approved guidelines.

6.1.5.2. Community Participation

Community participation must be facilitated and in this sense facilitation becomes an essential project management component which transforms the nature of project management.

It is thus proposed that built environment professionals and public sector project managers will have to augment their project management skills by an understanding of the facilitation management function which is about managing the technical and process components of community based delivery.

Capacity building integrates these two components and in many projects it may be necessary that a

social facilitator be appointed in addition to technical consultants.

Facilitation must be designed to achieve practical understanding by the actors of the project and of their respective roles. It must forge solidarity and enable the participants to perform their respective functions effectively during the ups and downs of implementation,

With responsibility for communities within their jurisdiction and for the formulation of Local Development Objectives, it is logical that local authorities should in time assume greater responsibility for process related facilitation and should advise national and provincial delivery agents on appropriate project delivery strategy.

Within the scope of the National Public Works Programme (NPWP) efforts have been made by different departments and at all spheres of government to realise the objective of poverty alleviation through the delivery of infrastructure.

In co-operation with industry, the PWD has commissioned 13 pilot projects worth R134 million which will generate some 3000 job opportunities. Informed by the broader experience of government and industry, these projects will assist in the consolidation of guidelines covering:

- *Schedules of production norms*
- *Implementation with consideration of delivery/payment models*
- *Job creation potential by different sectors*
- *Contractual requirements - i.e. contract documentation*
- *The information gathered will be made available to other departments, provinces, local authorities, professionals and the industry. In the above context the NPWP pioneered by the Department of Public Works will continue to be a central focus of government departments at all tiers.*
- *The Community Based Public Works Programme implemented by the DPW has sought to instill the ethos and methodology of community based delivery at provincial and local level.*

The monitoring of industry and public sector performance will need to include performance indicators on job creation, the targeting of local resources and capacity building.

6.1.5.3. Project Linked Training and Industry Skills Formation

The overall skills formation of the industry must be reinforced by the project linked training provided

on public sector projects. There is a need to create appropriate bridges between project linked training and main stream industry training, so as to maximise the benefits to both industry and to community based beneficiaries. In the specific South African context, the establishment of such bridges should be viewed as an integral component of the challenges manifested in training access and career path development* have been described in Chapter 4.

6.1.6. Indicated Institutional Response

The DPW, in co-operation with all public sector delivery agencies will continue to promote the delivery methods outlined. In co-operation with industry, the DPW plans to publish and continuously update a manual on labour-intensive methods.

6.2 Overcoming Regulatory Impediments to industry Performance

6.2.1. Problem Statement

6.2.1.1. Intent and Effects of Regulatory Mechanisms

The essential impact of regulation is to impose constraints 'on what might otherwise occur spontaneously. This can sometimes act to constrain those who wish to participate in the construction industry.

While regulatory mechanisms have negative consequences which may be unintended, regulation has its origins in positive purposes. Most regulatory frameworks have as their point of departure the need to protect the public interest. In the case of the construction industry, the regulation of general activities includes environmental, aesthetic, labour, safety and health factors.

Construction-related regulation comprises requirements to comply with pm-determined technical standards, and contractual provisions, and is essentially about limiting the risks associated with the construction process. The nature of these requirements is not always in line with what is minimally necessary to ensure an adequate product. Regulatory requirements can also add considerably to the costs of construction and can further determine the type of organisation which is competent to contract.

6.2.1.2. Applicable Legislation

Due to the complex nature of construction, from the employment of labour to the modification of the environment, a wide range of legislation has some relevance.

Broadly these include regulations dealing with the following:

- labour
- training
- administrative aspects
- technical aspects
- procurement and common practice

6.2S2.1 Labour Legislation

Legislation governing the regulation of labour includes the following:

- *The Labour Relations Act of 1996 as amended.*
- *The Manpower Training Act No. 56 of 1981 as amended.*
- *The Workers Compensation Act No. 30 of 1941 as amended.*
- *The Occupational Health and Safety Act No. 85 and No. 181 of 1993 as amended.*

Labour legislation is concerned Withlabourerelations, conditions of service, health and safety of workers and similar matters, all of which can be highly emotive.

692.1.2.2 Training

To access existing building or civil industry training schemes a construction enterprise should be registered as an employer with:

- the ~~commissioner~~ of Workmen's Compensation
- the Receiver of Revenue in terms of PAYE and VAT
- the Regional Services Council
- the Department of Labour
- the Industrial Council for the Building Industry

For emerging SMEs this process is a complex and intimidating one.

Further, the Manpower Training Act No. 56 of 1981, with amendments, has effectively given official endorsement to the separation of the building and civil construction sectors of the industry which is not considered desirable. The Building Industries Federation of South Africa (BIFSA) has operated a

training scheme in terms of the Act since 1987, and the South African Federation of Civil Engineering Contractors (SAFCEC) training scheme has been effective since 1991.

6.2.1.2.3. General Administrative Legislation

General legislation which affects the industry includes

- *The Constitution of the Republic of South Africa Act No. 108 of 1996*
- *The Harmful Business Practice Act No. 71 of 1988*
- *Maintenance and Promotion of Competition Act No. 96 of 1979 with amendments 02 of 1983, 12 of 1986, 96 of 1987 and 88 of 1990.*
- *The Physical Planning Act No. 125 of 1991*
- *The State Tender Board Act No. 86 of 1968 and amendments*
- *The Environment Conservation Act No. 73 of 1989*
- *The Development Facilitation Act No. 67 of 1995*
- *Provincial Ordinances covering Town Planning, Townships and Local Government*

6.2.1.4. Public Sector Regulation

In the effort to ensure public accountability current regulation governing the State and Provincial Tender Boards has shifted the onus of responsibility for the award of tenders away from those most competent to assess the issues. From simple procurement issues to the highly complex arena of construction procurement, decisions are governed by regulation which often leads to poor quality, wasteful expenditure and, even worse, paralysis.

Procedures generally make it difficult for the private contractor to respond effectively or prepare adequately to carry out works efficiently and quickly. Regulation on litigation for contractual disputes is also unfavorable, in terms of associated expense as well as stripping initiative and accountability.

Also worthy of special note are the many Provincial and Planning Ordinances which seek mainly to control development in urban areas. Unfortunately new provincial ordinances are not in place and the old ones which still apply differ from province to province (ie. the old Provinces). There is evidence of complaints regarding the time consumed in granting or refusing development consent, but this would appear to relate more to government capacity and execution than any underlying regulatory deficiency.

6.2.1.2.5. Technical Legislation

Arrange of technical matters are controlled by legislation.

- *The Standards Act No. 24 of 1945 as amended, Act No. 33 of 1962, Act No. 30 of 1982 and Act No. 29 of 1993*
- *The Mine Health and Safety Act No. 29 of 1996*
- *The National Building Regulations and Building Standards Act No. 103 of 1977 and amendments.*

Technical legislation generally relates to specifications and standards which are considered necessary by stakeholders. The control of standards by materials and the formulation of Codes of Practice are essential to public safeguards and must be maintained. However, the relevance of various standards requires constant review in the light of rapid technology advances and changing societal norms.

6.2.1.2.6. Procurement and Common Practice
Procurement through tendering practice in South Africa is based on the British Model which is generally a worldwide practice. While the system aims at equitable assignments, transparency and effective use of its resources, it is considered by many to be archaic and overly complex,

Achievement of standardisation will not be without difficulty. The industry has no common base or documents. Contract documentation currently in use includes:

- *the standard JBCC,*
- *old white form,*
- *the Public Works Contract,*
- *the New Engineering Contract of the British Institute of Civil Engineers and*
- *the International Federation of Consulting Engineers Contract (FIDIC)*

Many existing contractual arrangements also include onerous requirements which are not in fact prescribed by law or decree. These include document and performance deposits, tardy payments, and over-elaborate documentation.

6.2.1.2.7. Industry Self Regulation

Industry self-regulating mechanisms include representative employer associations, which in their proliferation are characteristic of the industry's damaging fragmentation. Together with the large

number of professional Institutions and Associations, there are many role players who lay claim to self-regulation. Unfortunately communication between these bodies is limited.

Formal self-regulation within the industry is also exercised by statutory councils controlling the different built environment professions. The councils are responsible for the conduct of professionals who are registered and include in their functions the monitoring of ethical codes of behaviour.

The purpose is to govern professional behaviour and protect the interest of the public as well as the standing of the professions,

6.2.2. Vision

The removal of regulatory impediments and the streamlining of the regulatory framework would contribute to an enabling framework and would reduce costs to both industry and clients.

6.2.3. (constraints)

Key legislation, governing training and administration in particular, have entrenched existing institutional arrangements such as the State Tender Board, BITB and CEITB. Thus, amendments to such legislation could have far-reaching impact on current dynamics.

The variation of standards from authority to authority, and province to province, is generally accepted as reflecting the individual views and needs of the different localities. This has a negative impact especially where labour and contractors operate in more than one province or local authority.

Though the rigid application of national standards could possibly expedite construction, past attempts at standardisation have met with limited success.

6.2.4. Principles

The endeavour to remove impediments and to streamline the regulatory environment will require close interaction with the industry and between, spheres of government.

The review should be guided by the following principles:

- be fair and equitable to all roleplayers,
- be transparent,
- be simple, easily understood and applied,

- **retain acceptable standards,**
- **be standardised as far as possible,**
- change existing controls only when necessary,
- be compatible with international practice,
- facilitate employment and growth of **SMEs,**
- promote growth and competitiveness in the industry,
- promote training in the industry,
- bind the industry and not promote fragmentation
- encourage partnerships,
- be flexible to accommodate all categories of work **and** contractors,
- ensure adequate accountability.

6.2.5. Proposals

6.2.5.1. Regulation Review

It is proposed that research be commissioned under the **direction** of the **CIDB**, the Department of Public Works and other affected government agencies to conduct a detailed review of regulation and procedure.

6.2.5.2. SME Assistance in Terms of Training Regulations

Currently contractors must be registered with 5 different organisations before they can access subsidised training. To assist SMEs in this task, it is proposed that a single agency, such as the **CIDB** or the **Emerging Contractors Development Programme**, include assistance to SMEs in such 5-fold registration. Such a "one-stop" service should be coupled with a registration and formalisation drive for all relevant SMEs.

6.2.5.3. Professional Bodies and the Statutory councils

The various professional associations (of architects, engineers, quantity surveyors, valuers, town planners and land surveyors) contribute to best practice and the education of their members. They are primarily focused on the interests of their membership and on promotion of the profession. The concern of the statutory councils for promotion of the professions stems from the need to protect public interests through regulation, registration of professionals and to promote **national** development objectives. Each profession is regulated by an Act of Parliament.

Consultation with the built environment **professional** bodies, supported by research conducted by the **HSRC**, has yielded emerging consensus on their various roles.

The need has been further identified for enhanced co-ordination through the expanded structuring of the statutory councils which govern the professions to enable, inter@ a broader concept of professions within the built environment.

An overarching Council for the Built Environment has been proposed as a **co-ordinating** structure with certain functions relating to national policy and legislation such as:

- the promotion of standards of health, safety and environmental protection,
- providing advice and consultation with regard to national policy that may impact on the built environment, human resources development and the recognition of new professions,
- evaluation and comment on all proposed legislation impacting on the built environment,
- initiation of investigations and legislation on issues **that** may impact on the built environment.

Together with the voluntary associations, the statutory councils which **accredit** tertiary training institutions, have an important role to play in fostering a multi-skilled professional education that is infused with an understanding of society's development needs.

The demand for professional best practice further required the proactive promotion and monitoring of continuous professional development. **There** is a need for periodic reassessment of professional competency to be embedded in the registration system.

Registration should include categories which facilitate progression and entry into the professions.

The establishment of a statutory **CIDB** would lead to a similar protection of public interests and enhancement of the industry.

6.2.6. Indicated Institutional Response

The envisaged **Construction** Industry Development Board coupled with the establishment of an overarching Council for the Built Environment Professions, would support an ongoing review of **regulation** to create an enabling **regulatory** framework.

6.3. Improving Public Sector Capacity to Manage Delivery

6.3.1. Problem Statement

Ranging from national departments, such as the Department of Public Works, to the newly created provinces and small local authorities, the lack of capacity to manage construction procurement is a source of delivery blockage which negatively affects the image of the public sector as well as the development of industry.

6.3.1.1. Essence of the Problem

This lack of capacity is largely a factor of an inappropriately structured and skilled bureaucracy which is now faced with development challenges of magnitude and complexity. The essence of the capacity problem resides in the lack of appropriate technical and procurement skills and, in some cases, the lack of an officer to fill a critical post.

6.3.1.2. Transformation

The imperative of institutional transformation to meet delivery objectives has been underestimated. In addition to grappling with processes of administration and transformation at a national level, government has had to establish regional administrations in the nine new provinces. In the light of South Africa's general lack of technical and administrative capacity, the development of fully fledged infrastructure delivery departments in all nine provinces is an ongoing and urgent priority driven by the need for accelerated delivery.

At local level, agencies central to construction delivery remained in a holding pattern until long after local government elections. This was followed by the demarcation of new local authority areas, with accompanying reorganisation which has further contributed to delivery bottlenecks.

At the same time, newly elected representatives and newly appointed officials took up office. Unfamiliar with their new roles, these have joined hands with previous incumbents to operationalise new policies, many of which are still in the melting pot.

6.3.1.3. The Demands of Construction Procurement

The high-risk nature of construction procurement derives from the project specific characteristic of design and implementation combined with the fact that construction is one of few products which is paid for by the client during manufacture. Effective procurement practice centres on the management of this risk.

Construction contracts are amongst the most complex and their management involves a wide

range of specialist disciplines to achieve the objectives of time, cost and quality. The requirements of public sector delivery incorporate the addition of socio-economic objectives and new techniques, such as those related to the PWD's Affirmative Procurement Policy, are being introduced in all spheres of public sector delivery.

The public sector must master the full spectrum of contract delivery models which range from a project managed delivery approach to conventional contractor delivery and through to variations on design and built contracts, all of which allocate risk differently to the contractual parties.

Correct selection of delivery models in combination with appropriate contract conditions, can be directed to achieve diverse social and economic objectives.

Therefore, public sector construction procurement is a highly specialised skill.

The demand for immediate and accelerating infrastructure development places an onus on public sector delivery agencies to perform beyond current capacity.

6.3.2. Vision

Rapid development of government capacity is required to ensure effective management of the delivery process and to impact on the regulatory framework in a way which supports an enabling delivery environment.

6.3.3 Constraints

In the process of transformation, public sector agencies are still having to contend with problems identified in the White Paper on the Transformation of the Public Service. These include

- not being fully representative of all population groups,
- a lack of service delivery
- centralised control of top-down management,
- an absence of effective management information systems,
- low productivity,
- poorly paid and in many cases inadequately trained staff,
- a lack of professionalism and a poor work ethic,

While many of these problems concern the internal workings of Government, they **also** affect the way in which Departments interact and **serve** the general public.

For government agencies involved in procurement of infrastructure, the above constraints further manifest themselves in government's expanded role as client interacting in **specialised** relationships with contractors, consultants and broader public.

The disjuncture of policy development at national /provincial **levels** and of implementation at all levels of government retards the ability of government to move swiftly **from** intent to action in the correction of constraints such as those relating to capacity.

Regulation (dealt with in the previous section) inhibits flexibility and the development of innovative responses, such as those involving public/private sector co-operation to overcome **capacity** constraints.

In the training of professionals, the specific requirements of public sector procurement and project management are not given recognition.

6.3.4 Principles

The right sizing of public **service** agencies involved in infrastructure **procurement** must be accompanied by a corresponding upgrading of skills to manage an increased private sector role in the delivery process.

Against the background of an expanding infrastructure delivery programme, government's role in the process must be rapidly reorientate towards

- correct articulation of public demand
- shrewd and appropriate procurement practices to ensure cost efficiencies and the attainment of **socio-economic** objectives
- stringent performance monitoring to ensure compliance and value for money
- prompt payment for services.

Emphasis on quality, **efficiency** and cost effectiveness can act to reorient public sector culture towards an ethos of performance and **service**.

Human resource development will need to encompass the specialised skills of procurement and project management; and could benefit from the expertise and capacity available in the private

sector. HRD **programmes** would also need to involve the professional bodies and tertiary institutions.

A review of regulation to **enable** greater **devolution** of managerial autonomy, innovation and responsiveness to delivery demands must be accompanied by alternative mechanisms to ensure accountability.

6.3.5 Proposals

6.3.5.1 Human Resource Development

There is a need for both immediate and medium term measures to develop public sector **procurement** capacity and project management.

6.3.5.1.1 Short-term Programmed

Much experience is available in the public service to spearhead the development of a programme of capacity building aimed at enhancing procurement expertise and project management skills.

For example, the Department of Public Works, in progressing transformation to achieve the objectives set out in its White Paper "Public Works towards the 21st Century", is developing systems and an internal Project Management Manual.

It is proposed that a small task team comprising experienced officials of public sector delivery agencies should engage with the professions and tertiary institutions to develop a short guide to public sector project management.

Accompanied by a seminar programme involving private sector delivery agents this approach **could** serve to boost **all** spheres of public sector performance in the short-term and would help to crystallise an understanding of the delivery problems faced on the ground.

6.6.5.1.2 The Need for Specialisation in Public Sector Management

In consultation with tertiary and **research** institutions it is proposed that the feasibility of establishing a tertiary level specialisation in public sector project management should be explored.

6.3.5.2 Private Sector **Secondments**

There is a need for a positive response to the readiness of the private sector to assist in overcoming current **capacity** constraints so as to unblock delivery. **Public** sector ability to enlist the skills of the private sector in a management and mentoring role requires the formulation of guidelines for **secondments** in order to replace current regulation which requires cumbersome tender procedures as well as tendering skills currently not available at all levels.

In co-operation with the professions and relevant government departments, the PWD is engaged in developing such guidelines for consideration.

6.3.6 Indicate Institutional Response.

The ongoing improvement of public sector capacity will require co-ordination and co-operation of all public and private sector participants in the delivery of infrastructure. The proposed CIDB would provide a recognised and authoritative national centre for the pursuit, coordination and monitoring of this endeavour.

6.4 Promoting Regional Cooperation

6.4.1 Problem Statement

Enhanced industry performance, capacity and competitiveness cannot be seen in isolation from the sub-regional arena and the tendency towards globalisation. In the sub-regional context, industry practice, is closely related to the developmental objectives of our own country as well as those of our neighbors. Co-operation is important to ensure a common development and operating environment which fosters industry progress.

Unlike any other industry sectors, the resources required to address sub-regional inequalities in obstruction capacity and performance are not beyond the reach of the combined construction industries.

6.4.1.1 An Interconnected System

Inequalities, such as the shrewd distribution of wealth and of the resources to generate wealth, in the regional economies gives rise to poverty, unemployment and social and physical debilitation in these countries. These problems have not confined themselves to the neighboring states, but migrate to South Africa to add to the already critical situation here. Therefore the Government's socio-economic strategy will only succeed in South Africa if it helps bring about transformation in the region as well.

6.4.1.2 Skills Migration,

Given the dramatic increase in construction supply required by the Government's socio-economic objectives, and given the capacity constraints facing the South African construction industry, neighboring countries might find their construction sectors depleted of appropriate skills, as technical, supervisory and management staff seek better opportunities in South Africa. Already, with these only a limited degree of investment, these economies have experienced an exodus of professional staff to South Africa which is likely to rise as spending accelerates.

6.4.1.3 Labour Exploitation

Some construction companies in South Africa have used labour-only subcontracting to circumvent existing industrial agreements. Some South African companies further circumvent these agreements by employing 'illegal migrants' from neighboring countries who are too vulnerable to object to difficult working conditions or rates of pay. Similarly, when contracting in the neighboring countries, these companies employ people under considerably worse conditions than would be acceptable in South Africa.

6.4.1.4 Material Shortages

Neighboring economies derive a large proportion of their construction materials from South Africa.

Given South Africa's targeted infrastructure spending of R170 to 232 billion over the next 5 years, the concern of regional partners that key construction materials may be in short supply is not unreasonable. Although South Africa has a sophisticated manufacturing industry which supplies almost all the requirements of the construction sector, successive recessions have caused manufacturers to significantly down scale their operations since the mid-1980's.

6.4.1.5 Economics versus Equity

There are strong economic justifications to support greater regional economic integration on the grounds that this could benefit the region as a whole by creating larger markets and by sharing the cost of physical and commercial infrastructure required to develop internationally competitive industries. In terms of the construction sector, there is already considerable inter-regional trade as individuals and firms seek new construction opportunities

From an equity point of view however, this growth vision can be questioned. Without a significant redistribution of resources in order to overcome historically derived imbalances, increased regional economic integration will continue to benefit the stronger partners as the expense of the weaker.

The advantages of greater regional integration to provide larger markets and shared resources creating economies of scale that will enhance the international competitiveness of the construction sector must be recognised. On the other hand, unless a serious commitment is made to address regional inequalities, the benefits of growth in South Africa will be short-lived. Further polarisation is likely to exacerbate the structural weaknesses of the economies of the region.

6.4.1.6 Impact of Trade Liberalisation

The adoption of World Trade Organisation (WTO) trade protocols by South Africa has accelerated the involvement of South African business beyond our

borders. **Already**, many South African companies have found markets in the regional economy. Although not as many companies from the neighboring states have found work in South Africa, trade liberalisation could result in the further flow of instruction **resources** towards South Africa thus exacerbating the maldistribution of those resources within the region.

6.4.1.7 International Trade

It should not be concluded, however, that greater regional and international trade in construction goods and **services** should be discouraged. Instead, industry should prepare for the inevitability of increased competition. This competition should assist in counteracting the existing structural inequalities and promote industry performance as new techniques and technologies are introduced locally.

On the other hand, support should be mobilised for "best practice" South African firms to export their goods and **services**. Greater exposure to international trends both here and abroad is likely to boost industry efficiency and effectiveness.

6.4.2 Vision

As signalled in the South African Construction Industry Initiative (SACII) Declaration of Intent, the development of a common framework for the construction industries of the region which will:

- open the construction markets in the region to the mutual benefit of all participating countries,
- level the playing fields for construction companies in different countries,
- encourage donors to standardise the procedures under which development projects will be funded,
- facilitate the movement of construction resources, firms and personnel within the region,
- contribute towards creating a more equitable development in the region.

6.4.3 Constraints

It is clear **from** the process since the Second Regional Seminar of SACCI, that notwithstanding the enthusiasm of participants, there are limited resources with which to take forward the initiative of establishing a common development and operating environment.

There is also some indication that not all regional Governments **have shown** the same degree of

commitment as the South African Government. It may therefore take a number of years before the Declaration of Intent is fully operationalised.

Further constraints include the shortage of skills and experienced personnel in the region, **the** maldistribution of construction materials and potential shortages.

6.4.4 Principles

An enabling regional policy should aim to attain the following objectives:

- Develop regional construction economies locally and create local employment.
- Promote skills and business education and training so as to provide transferable skills to ensure career development and the stimulation of micro, small and medium enterprises.
- Advocate the use of locally based technologies and the encouragement of **labour-based** construction and materials production.
- Ensure end-user participation in the definition and implementation of construction work.
- Negotiate a regional labour pact which would define minimum working conditions for construction **labour** in terms of the enabling policy framework.
- Co-operate in the sourcing of donor funds in order, to ensure that the benefits of the joint framework are shared throughout the region.
- Negotiate regional co-operational **agreements** between professional institutions to facilitate cross-border professional practice.

6.4.5 Proposals

6.4.5.1 Establishing a Common Operating Framework

Establishment of a common development and operating environment requires that intent be translated into action through the accomplishment of the following:

- an agreement negotiated between the **different** regional governments over the form **and** substance of a common development framework.
- **enabling legislation which includes methods of control** to ensure that construction work takes place within the common developmental

framework would need to be promulgated in each country in **order** that the benefits of the RDP can be shared by South Africa and her regional partners.

- . the negotiation of bilateral trade agreements specific to the construction sector arising out of the regional developmental framework.

With such a framework in place to define how construction work is done, the question of who does the work becomes irrelevant. As long as contractors adopt the same operating practices they should be encouraged to build in any regional market since the developmental impact will be **the** same as if a local contractor did the work.

6.4.5.2 Tackling Materials Shortages

The 3 to 5 year period before material shortfalls begin to be felt represents an opportunity for the development of small, micro and medium size enterprises in the materials supply sector. Increased output from existing suppliers and a growth of **imports** arising from trade liberalisation will ensure maintenance of the materials supply line to the broader sub-region, The enabling environment programme for the development of new **capacity** in **the** emerging sector is therefore closely **connected** to healthy sub-regional co-operation.

6.4.5.3 Regional **Labour** Pact

To protect the rights of **labour** in Southern Africa, and to ensure the development of human resources in the construction industry, it is proposed that a regional **labour** pact be negotiated in terms of government's **socio-economic** objectives. Such a **labour** pact could cover basic conditions of

employment, appropriate **labour** brokering practices and training.

6.4.6 Indicated Institutional Response

The Department of Public Works will continue to promote the above objectives in co-operation with relevant departments and with the private sector.

It is likely that agreements on the above issues will take place within the ambit of the southern African Development Community (SADC) and **Government's commitment to that institution suggests it will be the vehicle most appropriate to ensure a co-ordinated policy for the region. On the basis that regional co-operation through SADC occurs through the two basic processes of sectoral co-operation and trade integration these agreements would need to be negotiated** in close consultation between the PWD and the Department of Trade and Industry, which is responsible for general trade and development policy.

Government encourages provincial government departments to prepare regional policies within their own line function responsibilities, in which their 'individual contributions towards the promotion of balanced growth and prosperity for the region are clearly stated'. In line with the requirement to maintain a co-ordinated approach towards SADC, the PWD will provide a **sectoral** contact point for provincial Governments to interact with their neighboring SADC Member States on construction related issues.



CHAPTER 7

Institutional Arrangements

The proposals encapsulated in this document place a spectrum of responsibilities on both the state and private sector industry.

However, in an overarching sense, some key institutional arrangements and rearrangements must be facilitated (primarily by the state), to create an appropriate institutional environment for the RSA Construction Industry of the future

7.1. Principles

The institutional arrangements described are based on 4 operational principles. These stress the need for a co-ordinated approach to enabling environment programmes, for programme implementation which appropriately involves all stakeholders, and for ongoing evaluation of the effectiveness of the actions taken to achieve this.

The principles can be summarised as follows:

- Government must establish suitable instruments for industry wide collaboration to advise on policy and to ensure implementation of the programmes envisaged.
- Co-ordination of departments and levels of government through healthy and active working arrangements between national, provincial and local level administration is a pre-requisite to the success of the envisaged programmed.
- Ongoing policy development must accommodate changing priorities.
- Monitoring and evaluation that can track the progress of measures taken will enable the refinement of policy and its further development.

7.2. Government Responsibilities

In order to implement programmed which address the volatility of demand, improve industry performance, develop the capacity of the emerging sector, promote a streamlined regulatory framework and enhance government's capacity to manage delivery, government proposes to carry out the following:

7.2.1. Industry Performance

- Establish a Construction Industry Development Board (CIDB) to advise on policy and on any existing and proposed legislation which impacts on the industry, to champion the programmed of the enabling environment as well as to integrate and promote the industry at large. Section 7.4 of this document describes the proposed CIDB.
- Establish an Emerging Contractor Development Programme (ECDP) to ensure the development of emerging contractors and to advance their interests within the industry framework. Section 7.5 of this document further details the proposed ECDP.
- Enter into agency agreements with private sector organisations (e.g. research organisations, universities, training institutes, consulting firms, finance institutions) to obtain support for the planning and implementation of enabling environment programmes.
- Enter into partnerships with various industry roleplayers and with NGOs to enhance the impact of construction industry development initiatives such as those aimed at emerging enterprises, job creation and capacity building.

7.2.2. Public Sector Co-ordination

Recognizing that delivery is effected by a range of public sector agencies, there is a need for diverse forms of co-operation to ensure consultation in the development of policy, to co-ordinate programme implementation and the development of sound client capacity. There is a need for diverse forms of institutional arrangements which include the following:

- Establish an Inter-ministerial Committee comprising the key national Ministries engaged in infrastructure delivery to ensure a coordinated approach at policy level.
- Establish a co-ordinating structure with key national departments, provincial authorities, selected local authorities and public sector corporations (enterprises), to ensure that industry policy incorporates the broadest possible "client"

experience and that construction industry programmed are understood and effectively co-ordinated through all levels of government.

- Promote cooperation between national departments, provinces and agencies to maximise the benefit of selected programmed and pilot projects.

7.2.3. Policy Development and Co-ordination

The Department of Public Works has been charged with responsibility for establishing policies and guidelines for the construction industry to attain a range of objectives within the National Public Works Programme, including job creation, emerging enterprise development and enabling environment policy. The department has also been tasked with developing mechanisms for monitoring the achievement of these objectives.

The Department of Public Works will be responsible for coordinating the development, monitoring and dissemination of government policy. It will promote a public sector procurement and monitoring culture supportive of effective client practice, improved management as well as public and private sector partnerships, and it will support training and capacity building. Current transformation within the Department is equipping it to play a significant role in this regard.

Within the framework of transformation, the department is currently reinforcing its policy development capacity to enable cross-sectoral co-operation at a macro-economic level, a focus on industry development, labour market issues and emerging construction enterprise development. Related capacity includes monitoring and evaluation and the development of new procurement techniques aimed at public / private sector partnerships. It is envisaged that the Department will be in a position to provide a secretariat function to the planned CIDB.

The Department will enter into agency agreements with private sector organisations (e.g. research organisations, universities, training institutes, consulting firms, finance institutions) to augment its capacity for the development of policy and guidelines.

7.2.4. Human Resource Development

To overcome institutional constraints to public sector delivery the following are necessary:

- The rationalisation of regulation and procedure.
- Human resource development at all tiers of government.

- Cross-fertilisation of project management skills through a policy on private sector secondment to (and from) the public sector.

- The development of specialised project management training at tertiary level to ensure the emergence of professionals who are equipped to manage delivery in the spirit of the RDP, and who are competent in the arena of public sector project management.

- Information dissemination on emerging policy, guidelines and programmed.

For the purpose of human resource development, government needs to expand the existing communication instruments which currently include a monthly Public Works forum of Minister and MECs underpinned by a similar forum of the Director General and Provincial Department Heads.

7.3. Industry Responsibilities

Complementary to state responsibilities, industry should see itself responsible in the following areas:

- Co-operate in the establishment and operation of the CIDB and ECDP and actively support the achievement of their programme objectives.
- Make every effort to organise a currently divided industry, by facilitating unity between emerging and established sectors, as well as building and civil sectors.
- Support the objectives of human resource development within the public sector through appropriate partnering arrangements.

7.4. Construction Industry Development Board (CIDB)

7.4.1. The Case for Establishing the CIDB

A number of reasons maybe put forward in support of a statutory Construction Industry Development Board. These include the following

- Closer collaboration between the building and civil engineering sectors has already been identified as an important factor. At the very least, therefore, Government needs to consider whether the existing Advisory Councils should not be amalgamated. At the same time, Government needs to decide whether the constitution of the existing and previous councils are representative of the interest of all those directly involved in the construction process.

- **Beyond these issues of amalgamation and representation, the question needs to be posed whether any of the existing structures are able to promote such an ambitious strategy of industry transformation as outlined in this document.**

7.4.2. Aims

The complexity of the industry is well known to all associated with it. The CIDB will exercise leadership and foster the co-operation of industry stakeholders to pursue development objectives, improved industry practices and procedures which will enhance delivery, performance and value for money, profitability and the industry's long-term survival in an increasingly global arena.

With these aims, the CIDB will develop a business plan which builds on the programmed identified and focuses on projects which engage the industry effectively in a framework of ongoing participation.

7.4.3. Composition and Accountability

The CIDB will report to an Inter-ministerial Committee comprising the key national Ministries engaged in infrastructure delivery. These would include the Ministers of Transport, **Housing**, Water Affairs, Constitutional Development with Public Works as the accountable and coordinating Ministry

The composition of the CIDB must mirror the make-up of the industry with members appointed who are innovative, forward looking and influential in **their constituencies**. Any other approach would reduce the Board to yet another bargaining forum which would seek to reconcile the immediate interests of stakeholders represented. The prosecution of long-term growth strategies demands a broader **perspective**. Membership must therefore be reflective of the branches of industry: **civilians**, building, manufacturers and suppliers, emerging enterprises, **labour** and the professions without needing to represent their immediate interests.

In constituting the CIDB it is important to bear in mind that the clients of the industry are the driving force of any change **programme** and implementation of any such programme begins with them. The construction industry exists to serve its clients and client needs **must be met by the industry**.

The major clients of the industry are undergoing radical transformation. Public sector clients such as the PWD and others are re-defining their roles as articulators of demand and purchasers of public services, rather than of assets. Their new role incorporates improved performance monitoring as well as the monitoring of socio-economic objectives. There is a commitment to improved client

performance in terms of innovative procurement methods, **improved** payment and dispute resolution mechanisms. Opportunities brought about by democratisation are beginning to transform the nature of private sector clients,

Clients, therefore have a substantial role to play in setting standards and demanding improvements and their role must be reflected in the make-up of the Board.

7.4.4. Role

The **role** of the CIDB will be to:

- Provide leadership and **marshall** the support of industry stakeholders for ongoing growth and development reform in the industry.
- Review strategic issues critical to the development of an enabling environment.
- Establish a client forum comprising the major industry clients as driver of change.
- Develop priorities and establish reform objectives, targets and performance indicators.
- Establish and manage a business plan.
- Marshal the required resources through a levy which may be augmented by the Minister for specific purposes approved in the business plan.
- Provide a focal point for the coordination of research and development aimed at broad industry needs.
- Ensure the exchange of information on growth and development and disseminate information on procedures, techniques and methods developed by government, the ECDP and other organisations.
- Provide independent advice to the **Inter-ministerial Committee** coordinated by the Minister of Public Works.

7.4.5. Envisaged Programme Objectives

In pursuance of this role and supported by a Secretariat the CIDB will:

- Monitor and advise government on demand volatility and public sector measures to level spending
- Identify constraints and advise government on policy needs and on matters pertaining to public sector client performance and support efforts to

improve public sector capacity as an efficient and effective client at all levels of government

- Advise on the effectiveness of government policy and programmes aimed at the enhancement of industry performance and development
- Promote programmed and projects aimed at:
 - emerging enterprises support,
 - workplace change,
 - skill formation and career pathing,
 - industry excellence and best practice processes,
 - streamlined regulation and procedures,
 - procurement reform,
 - sub-regional co-operation and international competitiveness,
 - design best practice, and
 - innovative processes and practices

Develop measures to improve communication between industry stakeholders; to harness the commitment, experience and skills of industry participants and to share the knowledge and experience in a manner which will assist them to work together and to understand each others points of view.

Maintain a register of contractors for monitoring and evaluation in co-operation with government policy agencies.

7.5. Emerging Contractor Development Programme (ECDP)

7.5.1. Aims

The ECDP will provide direct and comprehensive support to small-scale and emerging construction enterprises. An important role of this programme, or agency, would be to influence construction industry transformation in a manner that purposefully encourages the emergence of small and emerging enterprises to meet new capacity requirements. The need for such a programme is grounded in recognition of the fact that measures instituted so far by government do not address the full scope of problems encountered by these enterprises.

Measures adopted by government thus far have focused on demand, or client-side, initiatives where swift intervention has been possible (e.g. 10-point plan). By their nature these measures have been restricted to enabling entry into the market.

These measures are unable, on their own, to impact on the problems encountered in the competitive market, and focused support is needed to address access to information finance, plant, skills training and management development. These measures primarily target contractors and do not, as yet, directly affect emerging manufacturers and suppliers.

7.5.2. Composition

The establishment of the Ntsika Enterprise Promotion Agency by the Department of Trade and Industry provides a valuable base for the development of emerging enterprises.

However, given the complexity of the construction industry, its envisaged transformation, and the specific nature of support required in the sector, the need is evident for the establishment of either:

- a dedicated Emerging Contractor Development Programme within Ntsika, or
- a specialised agency for this purpose.

In either case, there would need to be close links with industry.

Accepting that there could be powerful synergy with Ntsika, and that significant money has already been invested by government (DTI) into Ntsika, the first option offers the most efficient strategy provided that Ntsika is empowered to provide the level of specialisation and dedicated support required.

Construction management skills are the domain of the industry, which has much to contribute in developing mechanisms for the transfer of these skills.

Industry influence is also essential in tackling obstacles to obtaining credit and championing the adoption of various initiatives of the emerging sector such as "back-to-back" guarantees.

It is therefore envisaged that the programme should be established in close collaboration with the CIDB. It is however essential that ECDP be constituted in a manner which will gain the trust of both the emerging sector and its clients.

Given the extent of government funding required to support the programme's objectives, it is also important that its Board of Directors reflects public sector and client interests, which do not always coincide with those of enterprise.

This new programme, or agency, will benefit from Ntsika's experience and ongoing support. Institutional co-operation will need to be firmly embedded in its constitution to ensure cross-pollination and conformity of policy.

7.5.3. Role

The role of the ECDP will be to

- Provide leadership and promote understanding

and support of the emerging sector for growth and development programmed.

- Develop a shared vision and act as a catalyst for the organisation and marketing of small and emerging *construction* enterprises.
- Canvas the emerging sector and review strategic issues critical to its development and identify issues requiring policy intervention.
- Develop and prioritise programme objectives, targets and performance indicators.
- Establish and manage a business plan.
- Raise funds from government, the CIDB and other **agencies** on the basis of the business plan.
- Provide and co-ordinate structured support to emerging businesses, and to private sector initiatives which foster the development of the emerging sector.
- Advocate the interests of small and emerging enterprises and ensure that policies and procedures in the industry are supportive of an environment **conducive** to the development of the small and emerging enterprises.
- Monitor performance of these policies through a data base of small and emerging construction related enterprises.

7.5.4. Envisaged Programme Objectives

In pursuance of its role, and supported by a secretariat, the ECDF, will need to monitor and promote the following

- Make the procurement process **more** accessible, understandable, transparent and streamlined.
- Establishment of appropriate preference and participation **target policies** to enable **participation** in a manner which does not negatively impact on client risk, costs and industry standards.
- Promotion of suitable contracting models and the appropriate packaging of public sector contracts to enable diverse forms of participation which accommodate the full spectrum of emerging enterprise involvement.
- Co-management of a public sector emerging contractor database to monitor the success of policy and support instruments and to enable effective targeting of support.

- Review of tender conditions, specification and design to enable appropriate simplification, streamlining and transparency.
- Streamlining of payment arrangements to facilitate **cashflow** limitations of small enterprises.
- Facilitation of potential waiver arrangements of surety /guarantee requirements, which would need to be linked to performance monitoring and risk assessment.
- [introduction of dispute resolution procedures which do not cripple small enterprises.
- Continuous work by extracting statistical data from the envisaged **macro-economic** model, and advising on opportunities suitable for various contractor categories.
- Development of contracting and business management training as well as access to such training opportunities.
- Access to **finance** by **co-operation** with **Khula** and financial **institutions** aimed at reducing risk so as to encourage the establishment of appropriate loan scheme programmed and mechanisms.
- Access to credit at reasonable interest rates for the procurement of plant, equipment and materials.
- Access to information and advice.

7.5.5. Support Criteria

Limitations on public sector funding underline the need for support to be effectively targeted. Support to emerging enterprises, whether through **training**, financial **guarantees** or any other mechanism must balance the **need**:

- To be broad **based** and aimed at various sizes and categories of enterprises.
- To be rewarding of performance and progress towards sustainability.
- To include for exit criteria on the basis of success and failure so as to ensure **that support provided is justifiable and worthwhile.**

Government will therefore have a particular interest in the monitoring and evaluation of the various programmed to ensure adherence to these criteria, the effectiveness of the programmes as well as the utmost transparency.

7.6. Establishing an Effective Monitoring and Evaluation System

Policy and programmes to develop the performance and capacity of the industry cannot be managed or refined without adequate monitoring and evaluation systems. Within the ambit of its own activities, the PWD has commenced the process by establishing project reporting procedures aimed at capturing data on the achievement of job creation, training and emerging enterprise development. This, together with the consultants roster and a preliminary data base of emerging contractors, constitutes a cornerstone for a monitoring and evaluation system.

7.6.1. Objectives of Monitoring and Evaluation

A monitoring and evaluation system which continuously gathers information nationally will serve several purposes:

- Analysis at the following levels:
 - policy effectiveness,
 - programme effectiveness
 - socio-economic and geographic comparisons
 - best practice standards
- Identification of delivery bottlenecks
- Corrective measures and the adjustment of policy, guidelines and programmed as well as the re-direction of resources.
- The registration and categorisation of contractor and enterprises to enable:
 - the operation of a preference procurement policy for accredited construction firms or an approved public-sector tender list,
 - performance monitoring to enable appropriate action where standards are violated and to promote best practice,
 - the targeting of resources to emerging enterprises which are demonstrating progress and the withdrawal of support to those that have graduated or have failed to progress.

7.6.2. Register of Enterprises - long-Term Aim

The long-term aim is to establish and maintain a register of all contractors and construction enterprises. In addition to the monitoring of performance it is in the long-term public interest that no construction work should be undertaken by any enterprise not registered as a contractor with

the envisaged CIDB.

Public interest in this regard includes both shoddy performance as well as potential revenue losses to the Receiver, which ultimately impact on development finance.

Such registration is also fundamental to levelling the playing fields in which enabling environment programmes operate. Failure to achieve this aim will create loopholes for all contractors to side-step performance standards related to workplace improvement, labour regulation agreements and other objectives.

The establishment of such a register which tracks private as well as public sector performance can only be effective in conjunction with the establishment of a statutory CIDB with jurisdiction over the entire industry.

Existing voluntary federations have been unable to monitor or discipline their members, partly because no single organisation can claim to represent the industry. These federations have been unable or unwilling to intervene against members, whose performance has given rise to the poor public image of the industry or who adopt illegal labour practices. Although the National Home Builders Registration Council may provide an example of industry 'self-regulation', it is too early to tell whether it should serve as a model for a more general industry regulatory mechanism.

7.6.3. Immediate Purpose of the Register

The immediate purpose is to establish a register which accredits enterprises for public sector work and which captures data on the performance of these enterprises.

Ultimately it is envisaged that the register will comprise a set of sub-directories for all contractors, sub-contractors, consultants, training and support providers. These sub-directories will be disaggregated in terms of identified capacity and performance criteria in a manner that would enable the public sector to 'prequalify' firms for potential work opportunities. Since the public sector already makes use of select tender lists, and maters, and applies some performance criteria in the awarding of tenders, the proposal to develop more systematic registers for other construction-related enterprises is merely an extension of government's existing practice.

In terms of the programmed outlined in this document. contractors and consultants will be in receipt of considerable state funds for training, mentoring

and development activities. In order to ensure that state funds are appropriately used and that the public sector contributes effectively to an environment in which individuals and firms develop to their full potential, government requires a mechanism to monitor progress. The register would be used to monitor the development of emerging contractors and reward improved Performance through the allocation of scarce resources for training and business support.

Since new contractual requirements may limit previous contractual risk and responsibility by reducing or waiving sureties or performance guarantees, these registers will enable the public sector to allocate contracts with confidence that emerging contractors can perform at the required level. The registers will also enable the state to determine at what stage successful contractors should graduate from support programmed. Furthermore, the registers will allow the state to act in the case of non-performance of emerging and established contractors by limiting access to future public sector construction contracts.

7.6.4. Management and Maintenance

It is envisaged that the register be lodged and maintained by the CIDB and that monitoring and evaluation on behalf of government be co-ordinated by the department's policy development unit in collaboration with the CIDB secretariat. Procuring departments would be requested to feed back data on performance. Analyses and recommendations would be presented to the CIDB for deliberation, action and further recommendation to the Minister as appropriate.

This co-management of a public sector capacity and performance register would accomplish several objectives:

- Since accreditation, the monitoring of performance and the determination of standards needs to occur in an environment of utmost transparency, the CIDB will serve to oversee these processes and to ensure that performance standards are appropriate to changing industry circumstances,
- Approval by the CIDB of contract performance indicators will ensure broad industry acceptance of the data base and monitoring criteria.
- The integrity of the register and data base would be enhanced.
- Action to promote, penalise or withdraw support would not be perceived as the subjective whim of officialdom, but would be applied with the authority of agencies whose only interest lies in the development of the industry.

7.6.5. The Determination of Performance Criteria

It is proposed that the performance criteria be defined in terms of the proposals outlined in this document. These would include performance standards on the following

- Compliance with labour regulation.
- Nature and magnitude of work undertaken, and corresponding performance.
- Work-process transformation including health and safety, productivity, quality and environmental standards.
- Promotion of emerging enterprises including SME participation quotients, and affirmative action standards.
- Training and human resource development including standards identifying levels of training provided and certification received, employee participation in the selection of trainees and evidence of clear career development paths.

It is further proposed that the above framework of standards are introduced over a period of time to allow the government, in consultation with the CIDB, to formulate appropriate standards and to give firms sufficient time to put in place the appropriate procedures. During this period, the standards will be applied progressively, until the complete set of 'best practice' standards are in force. Since there are already firms close to defining the level of 'best practice', it is proposed that an increasing proportion of public sector work be set aside for those that may qualify during the interim phase. After a period of time to be determined by the CIDB, it is proposed that all public sector projects be let only to construction enterprises who are accredited in terms of established standards.

It is also proposed that interim guidelines include for a waiver of some performance criteria for contracts of limited value in order to encourage emerging small and medium firms. However, even for this grouping, it is proposed that certain minimum standards apply to avoid serious breaches and side-stepping practices. The performance criteria should therefore become progressively more rigorous as the value of contracts increases, on the assumption that the larger contracts will be performed by the more competitive firms. Since performance and capacity is regarded as an indicator of competitiveness, the same performance criteria will be applied to both established and emerging enterprises on contracts beyond a value which is to be established.



CHAPTER 8

The Way Forward

8.1. Essence of the Enabling Strategy

The preceding pages have documented the challenges facing industry and government together with ideas **on promoting the industry's growth and development. Principles and constraints are elaborated throughout the document. Proposals of a programmatic nature have been put forward in the five chapters dealing with stability, industry performance, human resources, the emerging sector and public sector capacity. Finally, proposals have been advanced on the institutional arrangements necessary to co-ordinate, evaluate and adjust the envisaged programmed on a continuous basis.**

To reiterate, Chapter 2 aims at attaining a more stable demand and employment environment as the foundation for improved industry performance. It proposes that the state should aim to moderate the fluctuations in its own expenditure by developing clear medium term fixed investment guidelines; and that the scheduling of public sector spending would provide a more predictable environment for private sector investment. It further proposes the promotion of sound industrial relations through appropriate public sector procurement mechanisms aimed at bringing a greater portion of the workforce within the ambit of labour regulation.

Chapter 3 examines mechanisms to enhance industry performance through the establishment, not only of **minimum**, but also of "best practice" performance standards. It proposes that their promotion in the industry be achieved through innovative public sector procurement practices. It envisages that these standards will relate to health and safety, quality, productivity and environmental protection. The establishment of a register of contractors, accredited to tender on public sector projects, is proposed as an integral measure which would also support the objectives of several other programmed.

The development of the human resources central to industry's improved performance is dealt with in Chapter 4, which reviews government's HRD strategy in the specific context of the construction sector. In particular, proposals are advanced on governance and financing to enable access to training consistent with the reality that the bulk of the workforce is employed by unaffiliated emerging black contractors. A turnover levy is proposed as a means of promoting an equitable financing

arrangement. At tertiary level the chapter highlights the need for training to be aligned more closely with development priorities and for intensified affirmative action to achieve greater representivity.

The focus of Chapter 5 is the creation of new industry capacity. It advocates the promotion of the emerging sector through affirmative action in support of historically disadvantaged sectors of society. The key proposal centres on the need for a specialised and dedicated emerging contractor support programme to build on the affirmative procurement policy developed by the PWD and to promote the sector's ability to access finance and managerial skills.

Chapter 6 deals with the need to develop the public sector's enabling role and its capacity to manage the delivery process. It affirms PWD's commitment to pursue delivery approaches which target the marginalised and identifies the need for special skills associated with this approach and with the full spectrum of delivery models and procurement mechanisms. The chapter recommends the commissioning of research to review and propose possible methods to effect a streamlined regulatory environment supportive of public and private sector innovation. In this regard, the role of the planned overarching Council for the Built Environment Professions is also highlighted. Capacity constraints are addressed through short and medium term training strategies. A policy of secondments from the private sector is advocated as an immediate means to overcome delivery bottlenecks.

Throughout the document, each proposal indicates the nature of institutional response necessary for its implementation. These are brought together comprehensively in Chapter 7 which outlines arrangements for inter-governmental and industry wide policy co-ordination. This chapter describes the nature and functions of the proposed statutory Construction Industry Development Board which is seen as essential for the co-ordination of any strategy for industry improvement.

8.2. Proposed Inter-Ministerial Task Team

The creation of an enabling environment in which growth and development benefits are maximised in the construction industry is a long-term endeavour of co-operation between government and the

industry. Recognition of this reality makes it imperative to begin the process now. The establishment of a statutory development board requires planning, consultation and legislation.

Interim structures to drive this process and to begin to operationalise enabling environment programmes need to be put in place as an urgent first step.

To ensure policy alignment and maximum coordination, Government will constitute an **Inter-ministerial** Committee comprising the key national Ministries engaged in **infrastructure** delivery. These include the Ministers of Transport, Housing, Water Affairs, Constitutional Development and Public Works as the accountable and coordinating Ministry. This committee will ensure focused **political support and coordination of measures aimed at enhanced infrastructure delivery construction industry growth and improvement and at development of the required institutional capacity. It will provide direction** in the finalisation of policy and the implementation of strategic programmed and will advise cabinet.

On behalf of the Inter-ministerial Committee, the Minister of Public Works will appoint a Task Team on Construction Industry Development, drawn from industry and government as well as a broader Reference Group. The Department of Public Works will provide the Task Team with executive and **coordinating capacity**. The Task Team's main purpose will be to drive the institutional development envisaged above. It will further provide a focal point for consultation and will act as a reference for further development of policy and of strategic **programmes**. From time to time the Task Team will consult the broader Reference Group of industry **specialists** and stakeholders. It is envisaged that the Task Team will have achieved its purpose when it hands over responsibility to the statutory Construction Industry Development Board. Its terms of reference will need to embrace the following:

- Report to the Minister

- Consultation and mobilisation of stakeholders to improve communication; to harness the commitment, experience and skills of industry participants and to share knowledge and experience in a manner which promotes understanding and co-operation.

- Evaluate comments received on this Green Paper and advise the Minister on further steps including any legislation required to give effect to the envisaged measures.

- Powers to appoint committees.

- Advice on the planning and implementation of key industry development proposals.

- The preparation of business plans for the launch of the Construction Industry Development Board which would include:

final composition and organisation structure.

prioritisation of programmed and projects

recommendations on funding and the mobilisation of resources and any other steps needed for the functioning of the CIDB.

8.3. Conclusion

Accelerated delivery of infrastructure is critical to the objectives of reconstruction and development. It is in the interests of government, industry and the public that levels of industry efficiency and effectiveness are raised together with those of public sector delivery agencies.

For those that work in the industry, as employers and employees, the growth and performance strategies proposed in this document will bring greater opportunities for involvement at every level.

Greater stability, improved access to training and career path development linked to entrepreneurial development measures, will ensure that growth coincides with the need to redress historical inequity and to create sustainable employment.

Ordinary South Africans, the beneficiaries of construction work, should gain from improved product quality and value for money.

In an increasingly global construction market, the South African economy as a whole will benefit from a more competitive industry able to provide innovation locally and to export construction services abroad.

A comprehensive approach to tackling the interlinked and mutually reinforcing impediments to industry development and the achievement of socio-economic objectives is beyond the scope of any single Government Department, or of the industry in isolation. A concerted national approach is necessary.

Coordinated innovation will reduce costs to the taxpaying public as wasteful duplication is avoided. In advancing this proposal government is outlining the role it is prepared to play in this joint endeavour. The principle of good governance underpins the envisaged establishment of the Construction

Industry **Development** Bead as a vehicle for national coordination.

In the interim, the PWD and the Departments associated with this document will continue to advance the many transformative initiatives already in progress.

This document constitutes an invitation for public comment. Feedback from interested parties will

inform the process of preparing a White Paper for consideration by Cabinet and Parliament. The PWD therefore invites all sectors of the industry, and all South Africans, to contribute to the project of growth and development in the South African construction industry.



Research and Consultation Process

The Ministry and Department of Public Works wish to acknowledge all the contributions that individuals and organisations have made in the process of formulating this Green Paper. These contributions were made by various formations of government, industry labour, parliamentary structures, researchers, academics and practitioners. A special word of appreciation is extended to members of the management and drafting team, in particular Spencer Hodgson, Nolulama Gwagwa, Sivi Gounden, Andrew Merrifield, Sam Amod, Joshua Nkosi and Nick Davis.

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 D Roe
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GLOSSARY

P2	procurement	obtaining of products and services through a formal process
P4	statutory board	board established bylaw
P4 P19	best practice best practice standards	term implying those practices within an industry that are regarded as optimum
P5	procurement reform	process to revise current procurement practice
P12	bipartite	two parties involved
P13	non-conformance	not meeting requirements
P19	prequalify	be accepted or shortlisted for a tender (not for work, but for a work opportunity)
P27	levy exemptions	legally entitled not to contribute a levy, or payment
P44	maldistribution	poor or skewed distribution
P44	promulgated	made known officially
P45	bilateral	affecting, or between, two parties or countries
P45	sectoral co-operation	sectors, or industries, working together
P45	trade integration	consolidating links between national, region and international economies
P51	preference procurement policy	favouring certain categories of vendors over others

ACRONYMS

CIDB	Construction Industry Development Board
DPW	Department of Public Works
NPWP	National Public Works Programme
ECDP	Emerging contractor Development Programme
SACII	Southern African Construction Industry Initiative
NURCHA	National Urban Reconstruction and Housing Agency
NHBRC	National Home Builders Registration Council
LOSC	Labour-only Sub-Contracting
ADR	Alternative Dispute Resolution
CISETO	Construction Industry Sector Education and Training Organisation
NTF	National Training Fund
SME	Small and micro enterprises
BITS	Building Industry Training Scheme
CEITS	Civil Engineering Industry Training Scheme

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